

From: gb-admin@ncbi.nlm.nih.gov
Date: Thu, 07 Nov 2019 17:22:18 -0500 (EST)
To: huben@wh.iov.cn
Bcc: Mizrachi@ncbi.nlm.nih.gov
Subject: GenBank MN312240-MN312869
X-Mailer: Smart

Dear GenBank Submitter:

Thank you for your submission.

Based on the data submitted to us, the scheduled release date for your submission is:

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However, if the accession number is published prior to that date, the sequence will be released upon publication.

Note that the entire sequence will be released when the article citing this accession number is published or on the above release date, whichever comes first. If this is not what you intended, please notify us immediately so that we can discuss your submission in more detail.

If this date is not correct, please let us know as soon as possible, otherwise this submission will be released on the date indicated above. The data will become available from our different servers within a few days of release. The data are simultaneously made available to ENA in Europe and the DNA Data Bank of Japan.

Changes may have been made to your original submission in order to conform to database annotation conventions including:

- Strings of N's, low quality sequence, vector or linker trimmed from ends
- Feature spans corrected and descriptions modified for all feature types including coding regions
- Nomenclature edited to 'official' gene names, product labels, etc.
- Exon spans adjusted to conform to the splice donor/acceptor consensus sequences, GT and AG, respectively
- Any mRNA or ribosomal RNA sequences submitted on the minus-strand have been reverse-complemented
- Taxonomic and source data edited, including unpublished organism names changed to temporary names. Please notify us when the organism names are published and we will update them accordingly.

If your submission needs revision, do not submit a new sequence. Instead, please follow the directions to update a sequence record at:
<https://www.ncbi.nlm.nih.gov/Genbank/update.html> Since the flatfile

record is a display format only and is not an editable format of the data, do not make changes directly to a flatfile. Send properly formatted updates to: gb-admin@ncbi.nlm.nih.gov

An accession number has been assigned to each nucleotide sequence and was previously provided to you. Note that during the processing, we have assigned protein identifiers to any proteins within the submission. This is fielded as /protein_id.

We strongly recommend that these numbers appear in any publication which reports or discusses these data, so that readers may easily retrieve your data from our databases.

Please reply using the current Subject line.

Sincerely,

Ilene Mizrachi, PhD
GenBank Direct Submission Staff
gb-admin@ncbi.nlm.nih.gov

GenBank flat file:

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LOCUS      MN312240          359 bp  RNA  linear  VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6300 RNA-dependent RNA
            polymerase (RdRp) gene, partial cds.
ACCESSION  MN312240
VERSION    MN312240
KEYWORDS   .
SOURCE     Rhinolophus bat coronavirus HKU2
ORGANISM   Rhinolophus bat coronavirus HKU2
            Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
            Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.
REFERENCE  1 (bases 1 to 359)
AUTHORS    Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
            Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE      Origin and cross-species transmission of bat coronaviruses in China
JOURNAL    Unpublished
REFERENCE  2 (bases 1 to 359)
AUTHORS    Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
            Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE      Direct Submission
JOURNAL    Submitted (13-AUG-2019) Key laboratory of special pathogens and
            biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
            Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES   Location/Qualifiers
            source          1..359
                        /organism="Rhinolophus bat coronavirus HKU2"
                        /mol_type="genomic RNA"
                        /isolate="6300"
                        /host="Hipposideros armiger"
                        /db_xref="taxon:693998"
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/gene="RdRp"
CDS <1..>359
/gene="RdRp"
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/protein_id="QGA87860"
/translation="CDRAMPSMIRMLAAMVVLGSKHVTCCTDSDFYRLSNELAQVLNE
VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDAV"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgcttgctg ctatggttct tggatctaag
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121 gttctaatg aggtgtgca ttctaagga ggttttatg taaaacctgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaat tctgtttta acatctttca ggcagttagc
241 ttaacatta acaggcttct ttctgttgat agtaatgtgt gtaacaactt gtatgtcaaa
301 aagcttcagc gctctatcta tgacaattgt tataggtcta gtgctgttga tgacgctgt

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LOCUS MN312241 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6332 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312241

VERSION MN312241

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6332"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>400
/gene="RdRp"
CDS <1..>400
/gene="RdRp"
/codon_start=2

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87861"
/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVI
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
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ORIGIN

1 tagagctatg cctagatga tccgcatgct tgctgctatg gttcttggat caaagcatgt
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121 taatgaggtt atacattcca atggaggttt ttatgtaaaa cccggtggca ctacatcagg
181 tgatgctaca actgcttatg caaactctgt cttaaatatt ttccaggcag ttagtctaa
241 cattaataga cttctttctg ttgatagtaa tgtgtgtaac aatttatatg taaaaaagct
301 tcagcgctct atctatgata attgttatag atctagtgtct gttgatgaca atgttggtac
361 agaattttat aactatctta agaagcattt ctctatgatg

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LOCUS MN312242 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6333 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312242

VERSION MN312242

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6333"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

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/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87862"

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VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL

QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 tgtgatag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag
61 catgttacat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcaaaa
121 gttcttaatg aggtgtgaca ttccaatgga ggttttatg taaaaccgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtctta atatttcca ggcagttage
241 tctaatatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcage gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgt
361 gttacagaat ttataacta tcttaagaag catttctcta tgatga

//

LOCUS MN312243 413 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6334 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312243

VERSION MN312243

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 413)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 413)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..413

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6334"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

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/gene="RdRp"

CDS <1..>413

/gene="RdRp"

/codon_start=2

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/protein_id="QGA87863"

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EVIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKK

LQRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMI"

ORIGIN

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121 acaagtctt aatgaggta tacattccaa tggaggtttt tatgtaaac ccggtggcac
181 tacatcaggt gatgctacaa ctgcttatgc aaactctgtc ttaatatccaggcagt

241 tagctctaac attaatagac ttcttctgt tgatagtaat gtgtgtaaca atttatatgt
301 aaaaaagctt cagcgtccta tctatgataa ttgttataga tctagtgtg ttgatgacaa
361 tgtgtgtaca gaattttata actatcttaa gaagcatttc tctatgatga ttt

//

LOCUS MN312244 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6340 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312244

VERSION MN312244

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="6340"

/host="unknown"

/db_xref="taxon:2042696"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

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/protein_id="QGA87864"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL

QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSSMM"

ORIGIN

1 tgtgatagag cattgcctaa tatgatccgt atgatatccg ccatgatttt gggttctaag
61 catgagaatt gttgactaa ctctgaccgt tattatagac tatgcaacga gttggtctaa
121 gtactaacgg aggtagtcta ttctaattggc ggtttttatt taaaaccagg tggtagcaca
181 tcgggtgatg caacgacggc ttatgccaat tcagtgttta atattttca agcagtcagt
241 gctaacatta atcgcatttt gggcgtaat agcaatactt gcaataactt aacagttaaa
301 agtttgacg gctctttgta tgacaattgt tatcgcaacta gtactgtgga ccctgccttt
361 gtagacacat tttatgggta cttacgcaaa catttcteta tgatga

//

LOCUS MN312245 403 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6343 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312245

VERSION MN312245

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6343"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

gene <1..>403

/gene="RdRp"

CDS <1..>403

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87865"

/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV

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ORIGIN

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61 tgttacatgt tgtacagaca gtgatagggt ttacagactt tctaatgaac ttgcacaagt

121 tcttaatgag gttgtacatt ccaatggagg tttttatgta aaaccgggtg gcactacatc

181 aggtgatgct acaactgctt atgcaaactc tgtctttaat atttccagg cagttagctc

241 taacattaat agacttcttt ctggtgatag taatgtgtgt aacaatttat atgtaaaaaa

301 gcttcagcgc tetatctatg ataattgta tagatctagt gctgtgatg acaatgtgt

361 tacagaattt tataactatc ttaagaagca tttctctatg atg

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LOCUS MN312246 405 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6347 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312246

VERSION MN312246

KEYWORDS .**SOURCE** Rhinolophus bat coronavirus HKU2**ORGANISM** Rhinolophus bat coronavirus HKU2Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.**REFERENCE** 1 (bases 1 to 405)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China**JOURNAL** Unpublished**REFERENCE** 2 (bases 1 to 405)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission**JOURNAL** Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China**FEATURES** Location/Qualifiers**source** 1..405

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6347"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

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/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87866"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"**ORIGIN**1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag
61 catgttcat gttgtacaga cagtgatagg tttacagac ttctaata ga acttgcaaa
121 gttctaatg aggttataca ttcaaatgga ggttttatg taaaaccgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtcttta atattttcca ggcagttagc
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcttaagaag catttcteta tgatg

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LOCUS MN312247 404 bp RNA linear VRL 07-NOV-2019**DEFINITION** Rhinolophus bat coronavirus HKU2 isolate 6350 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.**ACCESSION** MN312247**VERSION** MN312247**KEYWORDS** .**SOURCE** Rhinolophus bat coronavirus HKU2**ORGANISM** Rhinolophus bat coronavirus HKU2Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..404
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="6350"
 /host="Rhinolophus affinis"
 /db_xref="taxon:693998"
 /country="China"
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 /gene="RdRp"
 CDS <1..>404
 /gene="RdRp"
 /codon_start=3
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87867"
 /translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV
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 RSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 gtgatagagc tatgctagt atgatccga tgcctgctgc tatggttctt ggatcaaage
 61 atgttacatg ttgtacagac agtgataggt ttacagact ttctaatgaa ctgcacaag
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 241 ctaataataa tagacttctt tctgttgata gtaatgtgtg taacaattta tatgtaaaa
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 361 ttacagaatt ttataactat ctaagaagc atttctctat gatg

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LOCUS MN312248 352 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat coronavirus 1 isolate 6353 RNA-dependent RNA polymerase (RdRp)
 gene, partial cds.

ACCESSION MN312248

VERSION MN312248

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; unclassified
 Alphacoronavirus.

REFERENCE 1 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 352)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..352
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6353"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>352
/gene="RdRp"
CDS <1..>352
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87868"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTV"

ORIGIN

1 aatgtgatag agcattgcct aatatgatcc gtatgatatc cgccatgatt ttgggttcta
61 agcatgagaa ttgtgtact aactctgacc gttattatag actatgcaac gagttggetc
121 aagtactaac cgaggtatgc tattctaag gcggttttta ttaaaacca ggtggtacga
181 catcgggtga tgcaacgacg gcttatgcca atcagtggt taatatttt caagcagtca
241 gtgtaacat taatcgatt ttgggcgta atagcaatac ttgcaataac ttaacagtta
301 aaagttgca gcgctctttg tatgacaatt gttatcgac tagtactgtg ga

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LOCUS MN312249 416 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6355 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312249
VERSION MN312249
KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2
ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 416)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 416)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..416
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="6355"
 /host="Rhinolophus sp."
 /db_xref="taxon:693998"
 /country="China"
gene <1..>416
 /gene="RdRp"
CDS <1..>416
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87869"
 /translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
 VVHSNGGFYVKPGGTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
 QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMIQL"

ORIGIN

1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag
61 catgttacat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcaaaa
121 gttcttaagt aggtgtgaca ttcaatgga ggttttatg taaaaccgg tggcactaca
181 tcagtgatg ctacaactgc ttatgcaaac tctgtcttta atatttcca ggcagtttagc
241 tctaatatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcctaagaag catttctcta tgatgattca actgat

//

LOCUS MN312250 416 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU10 isolate 6362 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.
ACCESSION MN312250
VERSION MN312250
KEYWORDS .
SOURCE Bat coronavirus HKU10
ORGANISM Bat coronavirus HKU10
 Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Decacovirus.
REFERENCE 1 (bases 1 to 416)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 416)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..416
 /organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"
/isolate="6362"
/host="Hipposideros pomona"
/db_xref="taxon:1244203"
/country="China"
gene <1..>416
/gene="RdRp"
CDS <1..>416
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87870"
/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKSL
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ORIGIN

1 tgtgatagag cattgcctaa tatgatacgt atgattctg ctatgatact tggttctaaa
61 cacacgactt gttgtaccac agatgagagg tattataggt tgtgtaatga actgcacaaa
121 gtattaacag aagttgtgta ttcaatggt ggttttacc taaacctgg tggactaca
181 tctggtgatg catccacagc ctatgctaac tcagtcttta atattttca ggcgtcagt
241 ttaacatta acaggttact gactatcgac agtaacgtgt gtaataatgt tagtgtaaag
301 tctctcaga gagaattata tgacaactgc tatagatcgt caagtgtcga tgagcaattt
361 atagataagt attattgcta tttgcgcaaa cacttttcta tgatgattca actgat

//

LOCUS MN312251 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6367 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312251

VERSION MN312251

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6367"
/host="Hipposideros armiger"
/db_xref="taxon:693998"
/country="China"

gene <1..>407
/gene="RdRp"
CDS <1..>407
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87871"
/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV
VHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ
RSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMI"

ORIGIN

1 gtgatagagc tatgcctagt atgatccgca tgcttgctgc tatggttctt ggatcaaagc
61 atgttacatg ttgtcacagac agtgataggt ttacagact ttcaatgaa ctgcacaag
121 ttctaatga ggttgatcat tccaatggag gtttctatgt aaaaccggg ggcactacat
181 caggtgatgc tacaactgct tatgcaaact ctgtcttaa tttttccag gcagttagct
241 ctaataataa taggettctt tctgttgata gtaatgtgtg taacaattta tatgtcaaaa
301 agcttcagcg ctctatctat gacaactgtt atagatctag tgctgttgat gacaatgttg
361 ttacagaatt ttataactat ctaagaagc attttctat gatgatt

//

LOCUS MN312252 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6374 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312252

VERSION MN312252

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6374"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>406
/gene="RdRp"

CDS <1..>406
/gene="RdRp"
/codon_start=1

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/product="RNA-dependent RNA polymerase"  
/protein_id="QGA87872"  
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QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"
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ORIGIN

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1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag  
61 catgttacat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcaaca  
121 gttcttaagt aggttataca ttccaatgga ggtttttatg taaaacccgg tggcactaca  
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtcttta atattttcca ggcagtttagc  
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa  
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt  
361 gttacagaat ttataacta tcttaagaag catttctcta tgatga
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//

LOCUS MN312253 398 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6375-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312253

VERSION MN312253

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..398

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/organism="Rhinolophus bat coronavirus HKU2"  
/mol_type="genomic RNA"  
/isolate="6375-1"  
/host="Rhinolophus sp."  
/db_xref="taxon:693998"  
/country="China"
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gene <1..>398
/gene="RdRp"

CDS <1..>398
/gene="RdRp"

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/protein_id="QGA87873"  
/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVI  
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SIYDNCYRSSAVDDNVVTEFYNYLKKHFSM"
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ORIGIN

1 agagctatgc ctatgatgat ccgcatgctt gctgctatgg ttcttggatc aaagcatgtt
61 acatgttgta cagacagtga taggttttac agactttcta atgaacttgc acaagtctt
121 aatgaggtta tacattccaa tggagggttt tatgtaaaac ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgtc ttaatatatt tccaggcagt tagctctaac
241 attaatagac ttctttctgt tgatagtaat gtgtgtaaca atttatatgt aaaaaagctt
301 cagcgtccta tctatgataa ttgttataga tctagtgtcg ttgatgacaa tgtgtgtaca
361 gaattttata actatcttaa gaagcatttc tctatgat

//

LOCUS MN312254 398 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 6375-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312254

VERSION MN312254

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..398

/organism="Bat coronavirus 1"
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/isolate="6375-2"
/host="Rhinolophus sp."
/db_xref="taxon:2042696"
/country="China"

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CDS <1..>398

/gene="RdRp"

/codon_start=2

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/protein_id="QGA87874"

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YSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR

SLYDNCYRTSTVDPAFVDTFYGYLRKHFSM"

ORIGIN

1 cagagcactg cctaatatga tccgatgat atccgccatg attttgggtt ctaagcatga
61 gaattgtgt actaactctg accgttatta tagactatgc aacgagtgg ctcaagtact
121 gaccgagga gtctattcta atggcggttt ttatttaaaa ccaggtggta cgacatcggg

181 tgatgaacg acggcctatg ccaattcagt gtttaatttttcaagcag tcagtgctaa
241 cattaatcgc attttgggcg ttaatagcaa tacttgcaat aacttaacag ttaaagttt
301 gcagcgcctct ttgatgaca attgttatcg cactagtact gtggaccctg cctttgtaga
361 cacattttat ggttacttac gcaaacattt ctctatga

//

LOCUS MN312255 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6377 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312255

VERSION MN312255

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6377"

/host="unknown"

/db_xref="taxon:693998"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87875"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNE

VIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL

QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctatgcctag tatgatccgc atgettctg ctatggttct tggatcaag
61 catgttacat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcaaaa
121 gtcttaagt aggttataca ttccaatgga ggttttatg taaaaccggg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtcttta atatttcca ggcagtttagc
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcttaagaag catttctcta tgatga

//

LOCUS MN312256 395 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6388 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312256

VERSION MN312256

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 395)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 395)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..395

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6388"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

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gene <1..>395

/gene="RdRp"

CDS <1..>395

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87876"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE

VIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL

QRSIYDNCYRSSAVDDNVVTEFYNYLKKH"

ORIGIN

1 aatgtgatag agctatgcct agtatgatcc gcatgcttgc tgctatggtt cttggatcaa
61 agcatgttac atgtgtaca gacagtgata ggttttacag actttctaata gaactgcac
121 aagttcttaa tgagggtata cattccaatg gaggtttta tgtaaaaccc ggtggcacta
181 catcaggtga tgctacaact gcttatgcaa actctgtctt taatatttc caggcagta
241 gctctaacat taatagactt cttctgttg atagtaatgt gtgtaacaat ttatatgaa
301 aaaagcttca gcgctctatc tatgataatt gttatagatc tagtgctgtt gatgacaatg
361 ttgttacaga atttataac tatcttaaga agcat

//

LOCUS MN312257 400 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6389 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312257

VERSION MN312257

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6389"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>400
/gene="RdRp"

CDS <1..>400
/gene="RdRp"
/codon_start=2

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87877"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 tagagctatg cctagatga tccgcatgct tgctgctatg gttcttgat caaagcatg
61 tacatggtg acagacagt ataggttta cagacttct aatgaactg cacaagtct
121 taatgaggt gtacattcca atggaggtt ttatgtaaaa cccggtggca ctacatcagg
181 tgatgctaca actgctatg caaactctgt cttaaatatt ttccaggcag ttagctctaa
241 cattaataga cttcttctg ttgatagtaa tgtgtgtaac aatttatatg taaaaagct
301 tcagcgtct atctatgata atgttatag atctagtgt gttgatgaca atgtgttac
361 agaatttat aactatctta agaagcattt ctctatgatg

//

LOCUS MN312258 401 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 6400 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312258

VERSION MN312258

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES

Location/Qualifiers

source 1..401
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="6400"
/host="Rhinolophus sp."
/db_xref="taxon:393045"
/country="China"
gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87878"
/translation="RALPNMIRMISAMILGFKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLPKGGTTS GDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSV DASFVDEYFGYLRKHFSSMM"

ORIGIN

1 tagagcatta cctaataatga ttagaatgat ttccgctatg atttggggtt ttaagcacgt
61 cacgtgctgt actgctagt acaggtttta tagactctgt aatgagttgg cccaagtctt
121 aacagaggtt atctattcta atgggtggtt ctacctaaa cctggtggta ccacttctgg
181 tgatgctact actgcatacg ccaattctgt cttaacatt ttccaggcag ttagtgctaa
241 tgcaacagg ttgcttggtg ttgatagcaa cacatgcaac aatcttgaag tcaagcaatt
301 acagcgtaag ctttatgatt gctgctacag atcatctagt gttgatgcta gttttgtgga
361 tgagtatttt ggctatctac gtaagcattt ttctatgatg a

//

LOCUS MN312259 403 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 6401 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312259

VERSION MN312259

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 403)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..403
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6401"
/host="unknown"
/db_xref="taxon:2042696"
/country="China"
gene <1..>403
/gene="RdRp"
CDS <1..>403
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87879"
/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYNSGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQ
RSLYDNCYRTSTVDPAFVDTFYGYLRKHFSM"

ORIGIN

1 gtgatagagc attgecta atgatccgta tgatatccgc catgatttg ggttctaagc
61 atgagaattg ttgtactaac tctgaccgtt attatagact atgcaacgag ttggctcaag
121 tactaaccga ggtagtctat tctaatggcg gttttattt aaaaccaggt ggtacgacat
181 cgggtgatgc aacgacggct tatgccaatt cagtgttaa tattttcaa gcagtcagtg
241 ctaacattaa tcgcatttg ggcgtaata gcaacttg caataacta acagtaaaa
301 gtttgacgcg ctcttgat gacaattgt atgcactag tactgtggac cctgccttg
361 tagacacatt ttatggtac ttacgcaaac atttctat gat

//

LOCUS MN312260 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6403 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312260

VERSION MN312260

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..401
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6403"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87880"
/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV
VHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ
RSIYDNCYRSSAVDDNVVTEFYNYLKKHFSM"

ORIGIN

1 tgatagagct atgcctagta tgatccgcat gcttgctgct atggttcttg gatcaaagca
61 tgttacatgt tgtacagaca gtgatagggt ttacagactt tctaatgaac ttgcacaagt
121 tcttaatgag gttgtacatt ccaatggagg tttttatgta aaaccgggtg gcactacatc
181 aggtgatgct acaactgctt atgcaaactc tgtctttaat attttccagg cagttagctc
241 taatattaat agacttcttt ctggtgatag taatgtgtgt aacaatttat atgtaaaaaa
301 gcttcagegc tctatctatg ataattgtta tagatctagt gctgttgatg acaatgttgt
361 tacagaattt tataactatc ttaagaagca ttctctatg a

//

LOCUS MN312261 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6406 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312261

VERSION MN312261

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6406"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>400
/gene="RdRp"
CDS <1..>400
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87881"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDTVVTDYFNYLKKHFSMM"

ORIGIN

1 agagctatgc ctagtatgat acgtatgctt gctgccatgg ttcttgatc taagcacgtt
61 acatgttgta cagacagtga taggtttac agacttteta atgaactgc tcaagttctt
121 aatgaagttg tgcattctaa tggaggtttt tatgtaaac caggtggcac cacatcaggt
181 gatgctacga ctgcttatgc gaattctgtt ttaacatct ttcaggcagt tagctctaat
241 attaacagge ttctttctgt tgatagtaat gtgtgtaaca atttgatgt caaaaagctc
301 cagcgtctta tctatgacaa ttgttatagg tctagtgtg ttgatgacac tgttggtaca
361 gacttttaca attatcttaa gaagcacttt tctatgatga

//

LOCUS MN312262 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6408 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312262

VERSION MN312262

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6408"

/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87882"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTSGDATAAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 tagagcattg ctaatatga tccgtatgat atccgccatg atttggggtt ctaagcatga
61 gaattgtgt actaactctg accgttatta tagactatgc aacgagtgg ctcaagtact
121 aaccgagga gtctattcta atggcggttt tatttaaaa ccaggtgga cgacatcggg
181 tgatgcgacg gcggttatg ccaattcagt gttaatat ttcaagcag tcagtgctaa
241 cattaatcgc atttggggeg ttaatagcaa tacttgcaat aacttaacag ttaaagttt
301 gcagcgtct ttgatgaca attgtatcg cactagtact gtggaccctg cctttgtaga
361 cacatttat ggttacttac gcaaacattt ctctatgatg a

//

LOCUS MN312263 352 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6409 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312263

VERSION MN312263

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..352
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6409"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>352
/gene="RdRp"

CDS <1..>352
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87883"
/translation="AAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHSNGGFYVKP
GGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSIYDNCYRSS
AVDDNVVTEFYNYL"

ORIGIN

1 ttgctgctat ggttcttggga tcaaagcatg ttacatggtg tacagacagt gataggttt
61 acagacttcc taatgaactt gcacaagttc ttaatgaggt tgtacattcc aatggaggtt
121 tctatgtaaa acccggtggc actacatcag gtgatgctac aactgcttat gcaaactctg
181 tcttaatat ttccaggca gttagctcta atattaatag gcttcttct gttgatagta
241 atgtgtgtaa caatttat gtcaaaaagc ttcagcgtc tatctatgac aactgttata
301 gatctagtgc tgttgatgac aatgtgtta cagaatttta taactatctt aa

//

LOCUS MN312264 419 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6416 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312264

VERSION MN312264

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 419)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 419)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..419

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6416"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>419

/gene="RdRp"

CDS <1..>419

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87884"

/translation="DYPKCDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQ

VLNEVVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLY
VKKLQRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 gattatccta aatgtgatag agctatgcct agtatgatcc gcatgcttgc tgctatggtt
61 cttggatcaa agcatgttac atgtgtaca gacagtata gggtttacag actttctaat
121 gaactgcac aagttcttaa tgaggttga cattcaatg gaggtttta tgtaaaacc
181 ggtggcacta catcaggtga tgctacaact gcttatcaa actctgtctt taatatttc
241 caggcagta gctetaacat taatagactt cttctgttg atagtaatgt gtgtaacaat
301 ttatgttaa aaaagctca gcgctctatc tatgataatt gttatagatc tagtgctgtt
361 gatgacaatg ttgttacaga attttataac tatcttaaga agcatttctc tatgatgat

//

LOCUS MN312265 418 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6424 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312265

VERSION MN312265

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..418

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6424"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

gene <1..>418

/gene="RdRp"

CDS <1..>418

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87885"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE

VIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL

QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMIQLM"

ORIGIN

1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag
61 catgttacat gttgtacaga cagtgatagg tttacagac ttctaatga acttgcacaa

121 gttcttaatg aggttataca ttccaatgga ggttttatg taaaaccggg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtcttta atattttcca ggcagttagc
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcttaagaag catttctcta tgatgattca actgatga

//

LOCUS MN312266 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6425 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312266

VERSION MN312266

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6425"

/host="unknown"

/db_xref="taxon:693998"

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gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87886"

/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDFYRLSNELAQVLNEV

IHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ

RSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 gtgatagagc tatgctagt atgatccgca tgcttgctgc tatggttctt ggatcaaage

61 atgttacatg ttgtacagac agttagatggg ttacagact ttcaatgaa cttgcacaag

121 ttcttaatga ggttatacat tccaatggag gttttatgt aaaaccggg ggcactacat

181 caggtgatgc tacaactgct tatgcaaact ctgtctttaa tattttccag gcagttagct

241 ctaacattaa tagacttctt tctgttgata gtaatgtgtg taacaattta tatgtaaaaa

301 agcttcagcg ctctatctat gataattggt atagatctag tgctgttgat gacaatgttg

361 ttacagaatt ttataactat ctaagaage atttctctat gatga

//
LOCUS MN312267 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6427 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312267

VERSION MN312267

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6427"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>400

/gene="RdRp"

CDS <1..>400

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87887"

/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV

HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR

SIYDNCYRSSAVDDTVVTDYFNYLKKHFSM"

ORIGIN

1 atagagctat gcctagtatg atacgtatgc ttgctgcat ggttcttga tctaagcacg
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121 ttaatgaagt tgtgcattct aatggaggtt tttatgtaa accaggtggc accacatcag
181 gtgatgctac gactgctat gcgaattctg ttttaacat cttcaggca gtagctcta
241 atattaacag gcttctttct gttgatagta atgtgtgtaa caatttgat gtcaaaaagc
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361 cagacttta caattatctt aagaagcact ttctatgat

//

LOCUS MN312268 401 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 6535 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312268

VERSION MN312268

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="6535"

/host="Aselliscus stoliczkanus"

/db_xref="taxon:393045"

/country="China"

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/gene="RdRp"

CDS <1..>401

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87888"

/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI

YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKRLQR

KLYDCCYRSSSVDASFVDEYFGYLRKHFSMM"

ORIGIN

1 tagagcatta ctaaatatga ttagaatgat ttccgctatg atttggggtt ctaagcacgt

61 cacgtgctgt actgctagt acaggttta tagactctgt aatgagttgg cccaagtctt

121 aacagaggtt atctattcta atggtgggtt ctacctaaa cctgggtgta ccacttctgg

181 tgatgctact actgcatacg ccaattctgt cttaacatt ttccaggcag ttagtgctaa

241 tgcaacagg ttgcttggtg ttgatagcaa cacatgcaac aatcttgaag tcaagcgatt

301 acagcgtaag ctttatgatt gctgctacag atcatctagt gttgatgcta gttttgtgga

361 tgagtatttt ggctatctac gtaagcattt ttctatgatg a

//

LOCUS MN312269 400 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 6543 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312269

VERSION MN312269

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="6543"

/host="Aselliscus stoliczkanus"

/db_xref="taxon:393045"

/country="China"

gene <1..>400

/gene="RdRp"

CDS <1..>400

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87889"

/translation="DRALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEV

IYSNGGFYLPKPGGTTSGDATTAYANSVFSIFQAVSANVNRLLGVDSNTCNNLEVKQLQ

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ORIGIN

1 gatagagcat tacctaata gattagaatg atttccgcta tgattttggg ttctaagcac
61 gtcacgtgct gtagctgtag tgacaggttt tatagactct gtaatgagtt ggcccaagtc
121 ttaacagagg ttatctatc taatggtggt ttctacctt aacctggtgg taccactct
181 ggtgatgcta ctactgcata cgccaattct gtcttagca tttccaggc agttagtgt
241 aatgtcaaca gttgcttgg tttgatagc aacacatgca acaatctga agtcaagcaa
301 ttacagcgt aagcttatga ttgctgctac agatcatcta gtgtgatgc tagttttgtg
361 gatgggtatt ttgctatct acgtaagcat tttctatga

//

LOCUS MN312270 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6589 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312270

VERSION MN312270

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 406)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..406
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="6589"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>406
/gene="RdRp"
CDS <1..>406
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87890"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNE
VIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

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1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaag
61 catgttcat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcaaca
121 gttcttaatg aggttataca ttcaatgga ggttttatg taaaacctgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtctta atatttcca ggcagttage
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcttaagaag catttcteta tgatga
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LOCUS MN312271 380 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6590 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312271

VERSION MN312271

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 380)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 380)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..380

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6590"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

gene <1..>380

/gene="RdRp"

CDS <1..>380

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87891"

/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV

HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR

SIYDNCYRSSAVDDNVVTEFYNYL"

ORIGIN

1 agagctatgc ctagtatgat ccgcatgctt gctgctatgg ttcttggatc aaagcatggt
61 acatgttgta cagacagtga taggttttac agactttcta atgaacttgc acaagttctt
121 aatgaggttg tacattccaa tggaggttcc tatgtaaaac ccgggtggcac tacatcaggt
181 gatgetacaa ctgcttatgc aaactctgtc ttaaatatt tccaggcagt tagctctaat
241 attaatagc tcttctctgt tgatagtaat gtgtgtaaca atttatatgt caaaaagctt
301 cagcgtccta tctatgacaa ctggtataga tctagtctg ttgatgacaa tgttgttaca
361 gaattttata actatcttaa

//

LOCUS MN312272 380 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6591 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312272

VERSION MN312272

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 380)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 380)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..380
 /organism="Rhinolophus bat coronavirus HKU2"
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 /isolate="6591"
 /host="Rhinolophus sp."
 /db_xref="taxon:693998"
 /country="China"
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 /gene="RdRp"
 CDS <1..>380
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87892"
 /translation="AMPSMIRMLAAMVLGSKHVTCCDSDRFYRLSNELAQVLNEVVH
 SNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRS
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ORIGIN

1 gctatgccta gtatgatccg catgcttgct gctatggttc ttggatcaaa gcatgttaca
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 121 gaggtgttac attccaatgg aggtttctat gtaaaccgg gtggcactac atcaggtgat
 181 gctacaactg cttatgcaaa ctctgtcttt aatattttcc aggcagttag ctctaata
 241 aataggcttc tttctgttga tagtaatgtg tgtaacaatt tatatgtcaa aaagcttcag
 301 cgctctatct atgacaactg ttatagatct agtgctgttg atgacaatgt tgttacagaa
 361 tttataact atcttaagaa

//

LOCUS MN312273 385 bp RNA linear VRL 07-NOV-2019
 DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6592 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312273

VERSION MN312273

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 385)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 385)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..385
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 /isolate="6592"

/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>385
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CDS <1..>385
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/codon_start=2
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VHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYFKKLQ
RSIYDNCYRSSAVDDTVVTDVFYNYLK"

ORIGIN

1 tgatagagct atgcctagta tgatacgtat gcttgctgct atggttcttg gatctaagca
61 cgttacatgt tgacagaca gtgataggtt ttacagactt tctaacgaac ttgcgcaagt
121 tcttaatgag gttgtgcatt ctaatggagg tttttatgta aaacctgggtg gcactacatc
181 aggtgatgct acaactgctt atgcaaattc tgttttaac atcttcagg cagttagctc
241 taacattaac aggettcttt ctggtgatag taatgtgtgt aacaactgtg acttcaaaaa
301 gcttcagegc tctatctatg acaattgta taggtctagt gctggtgatg aactgtgtg
361 tacagacttc tacaactatc ttaag

//

LOCUS MN312274 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6593 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312274

VERSION MN312274

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
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/db_xref="taxon:693998"
/country="China"
gene <1..>402
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CDS <1..>402
/gene="RdRp"
/codon_start=3
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/protein_id="QGA87894"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 atagagctat gcctagtagt atccgcatgc ttgctgctat ggttcttgga tcaaagcatg
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121 ttaatgaggt tgtacattcc aatggaggtt tctatgtaa acccggtggc actacatcag
181 gtgatgctac aactgcttat gcaaactctg tctttaatat ttccaggca gttagcteta
241 atattaatag gcttctttct gttgatagta atgtgtgtaa caatttatat gtcaaaaagc
301 ttcagcgtc tatctatgat aactgttata gatctagtgc tgttgatgac aatgttgta
361 cagaatttta taactatctt aagaagcatt tttctatgat ga

//

LOCUS MN312275 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6594 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312275

VERSION MN312275

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399
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/mol_type="genomic RNA"
/isolate="6594"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>399
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CDS <1..>399
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA87895"

/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 agagctatgc ctagtatgat ccgcgatgctt gctgctatgg ttcttggatc aaagcatgtt
61 acatgttga cagacagtga taggttttac agactttcta atgaacttgc acaagtctt
121 aatgaggttg tacattccaa tggaggttcc tatgtaaacc cgggtggcac tacatcaggt
181 gatgetacaa ctgcttatgc aaactctgtc tttaatattt tccaggcagt tagctctaat
241 attaatagc ttctttctgt tgatagtaac gtgtgtaaca atttatatgt caaaaagctt
301 cagcgtccta tctatgataa ctgttataga tctagtgtc ttgatgacaa tgtgttaca
361 gaattttata actatcttaa gaagcatttt tctatgatg

//

LOCUS MN312276 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6596 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312276

VERSION MN312276

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6596"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>407

/gene="RdRp"

CDS <1..>407

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87896"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCTDSARFYRLSNELAQVLNE

VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDTVVTDVDFYNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctagcctag tatgatcgt atgcttgctg ccatggttct tggatctaag

61 cacgttacat gttgtacaga cagtgtagg ttttacagac ttctaaca acttgcgcaa
121 gttctaatg aggtgtgca ttctaagga ggttttatg taaacctgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaat tctgtttta acattttca ggcagttage
241 tetaacatta acaggcttct ttctgtgat agtaatgtgt gtaacaactt gtatgtcaaa
301 aagcttcagc gctctatcta tgacaattgt tataggtcta gtgctgtga tgacactgtt
361 gttacagact tctacaacta tettaagaag catttttcta tgatgat

//

LOCUS MN312277 377 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6597 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312277

VERSION MN312277

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..377

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="6597"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

gene <1..>377

/gene="RdRp"

CDS <1..>377

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87897"

/translation="AMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVH

SNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRS

IYDNCYRSSAVDDNVVTEFYNYL"

ORIGIN

1 gctatgccta gtatgatccg catgcttgc gctatggtc ttggatcaa gcatgttaca

61 tgtgtacag acagtgatag gtttacaga ctttctaat aactgcaca agttctaat

121 gaggtgtac attccaatgg aggtttctat gtaaaccgg gtggcactac atcaggtgat

181 gctacaactg cttatgcaaa ctctgtctt aatatttcc aggcagttag ctctaatt

241 aataggctc ttctgttga tagtaatgtg tgtaacaatt tatatgtcaa aaagcttcag

301 cgctctatct atgacaactg ttatagatct agtgcgttg atgacaatgt tgttacagaa

361 tttataact atcttaa
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LOCUS MN312278 380 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6598 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312278
VERSION MN312278
KEYWORDS .
SOURCE Rhinolophus bat coronavirus HKU2
ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.
REFERENCE 1 (bases 1 to 380)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 380)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..380
/organism="Rhinolophus bat coronavirus HKU2"
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/isolate="6598"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
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/gene="RdRp"
CDS <1..>380
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA87898"
/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYL"

ORIGIN

1 agagctatgc ctagtatgat ccgcatgctt gctgctatgg ttcttggatc aaagcatgtt
61 acatgttgta cagacagtga taggttttac agactttcta atgaactgc acaagttctt
121 aatgaggttg tacattccaa tggaggtttc tatgtaaacc ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgct ttaatatatt tccaggcagt tagctctaat
241 attaatagc ttcttctgt tgatagtaat gtgtgtaaca atttatatgt caaaaagctt
301 cagcgtctta tctatgacaa ctggtataga tctagtctg ttgatgacaa tgttgttaca
361 gaatttata actatcttaa

//
LOCUS MN312279 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6601 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312279

VERSION MN312279

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6601"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>400

/gene="RdRp"

CDS <1..>400

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87899"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 agagcattgc ctaatatgat ccgtatgata tccgcatga ttttgggttc taagcatgag
61 aattgttga ctaactcaga ccgttactat agactatgca acgagttggc acaagtgcta
121 accgaggtag tctattctaa tgccggtttt tatttaaac caggtgttac gacatcgggt
181 gatgcaacga cggttatgc caattcagtg ttaatatatt ttcaagcagt cagtgctaac
241 attaatcgca ttttgggcgt taatagcaat acttgcaata acttaacagt taaaagtttg
301 cagcgtctt tgatgacaa ttgtatcgc actagtactg tggaccctgc cttttagac
361 acatttatg gttacttacg caaacatttc tctatgatga

//

LOCUS MN312280 405 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 6602 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312280

VERSION MN312280

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6602"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87900"

/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYSNGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQ
RSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 gtgatagagc attgcctaat atgatccgta tgatatccgc catgattttg ggttctaagc
61 atgagaattg ttgtactaac tctgaccgtt attatagact atgcaacgag ttggctcaag
121 tgctaaccga ggtagtctat tctaatggcg gttttattt aaaaccaggt ggtacgacat
181 cgggtgatgc aacgacggct tatgccaatt cagtgttaa catcttcaa gcagtcagtg
241 ctaacattaa tcgcattttg ggcgtaata gcaactctg caataactta acagttaaaa
301 gtttgacgag cctcttgat gacaattgt atcgactag tactgtggac cctgcctttg
361 tagacacatt ttatggttac ttacgcaaac atttctctat gatga

//

LOCUS MN312281 404 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 6603 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312281

VERSION MN312281

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..404
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6603"
/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>404
/gene="RdRp"
CDS <1..>404
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87901"
/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYSNGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQ
RSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 tgatagagca ttgcctaata tgatacgtat gatatccgcc atgattttgg gttctaagca
61 tgagaattgt tgactaact cagaccgta ttatagacta tgcaacgagt tggcacaggt
121 gctaaccgag gtggtctatt ctaatggcgg ttttattta aaaccaggtg gtacgacatc
181 gggatgca acgacggctt atgccaattc agtgttaac atcttcaag cagtcagtgc
241 taacattaat cgcattttgg gcgtaatag caatacttgc aataactga cagttaaag
301 ttgcagcgc tcttgtatg acaattgta tgcactage actgtggacc ctgccttgt
361 agacacattt tatggttact tacgcaaca tttctctatg atga

//

LOCUS MN312282 404 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6605 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312282

VERSION MN312282

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 404)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..404
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/mol_type="genomic RNA"
/isolate="6605"
/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>404
/gene="RdRp"
CDS <1..>404
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA87902"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL
QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSM"

ORIGIN

1 tgtgatagag cattgcctaa tatgatccgt atgatatccg ccatgatttt gggttctaag
61 catgaaaatt gttgactaa ctcagaccgt tattatagac tatgcaacga gttggcacag
121 gtgctaaccg aggtggtcta ttctaattggc ggtttttatt taaaaccagg tggtagcaca
181 tcgggtgatg caacgactgc ttatgccaat tcagtgttta acatcttca agcagtcagt
241 gctaacatta atcgcathtt gggcgtaat agcaatact gtaataact gacagttaa
301 agtttgagc gctctttgta tgacaattgt tategcacta gcaactgtga cctgccttt
361 gtagacacat tttatggta cttacgcaa catttctta tgat

//

LOCUS MN312283 404 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6606 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312283

VERSION MN312283

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..404
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6606"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>404
/gene="RdRp"
CDS <1..>404
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87903"
/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYSNGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQ
RSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 tgatagagca ttgcctaata tgatccgtat gatatccgcc atgattttgg gttctaagca
61 tgagaattgt tgactaact ctgaccgta ttatagacta tgcaacgagt tggctcaagt
121 gctaaccgag gtagtctatt ctaatggcgg ttttattta aaaccaggtg gtacgacatc
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241 taacattaat cgcattttgg gcgttaatag caatacttgc aataactaa cagttaaag
301 ttgcagcgc tcttgtatg acaattgta tgcactagt actgtggacc ctgcctttgt
361 agacacattt tatggttact tacgcaaca tttctctatg atga

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LOCUS MN312284 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 6607 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312284

VERSION MN312284

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400
/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="6607"
/host="Miniopterus fuliginosus"
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/country="China"
gene <1..>400
/gene="RdRp"
CDS <1..>400
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87904"
/translation="RALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSLQR
MLYDNCYRSSAVDPGFVDTFYGYLRKHFSM"

ORIGIN

1 atagagcatt gcctaacatg atcgtatga tttctgctat gattttgggt tctaagcatg
61 ttaattgtg taccaattca gatcgttatt atagacttg taatgaact gcacaagtc
121 ttactgaggt ggtctattct aacggggggt tctatatgaa gcctgggtgt actactctg
181 gtgatgccac tactgcctat gctaattctg tttcaacat attccaggct gttagtgcc
241 atattaatag gattttgggt attaatagta atacctgtaa taatcttact gttaagtcac
301 ttcagegcat gctttatgac aattgttata gaagttctgc cgttgatcct ggttttgtg
361 atacgttta tggctacttg cgtaagcatt tctctatgat

//

LOCUS MN312285 403 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6608 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312285

VERSION MN312285

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6608"

/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>403
/gene="RdRp"
CDS <1..>403
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/protein_id="QGA87905"
/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYSNGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQ
RSLYDNCYRTSTVDPAFVDTFYGYLRKHFSM"

ORIGIN

1 gtgatagagc attgctaata atgatccgta tgatatccgc catgattttg ggttctaagc
61 atgagaattg ttgtactaac tcagaccgtt attatagact atgcaacgag ttggcacagg
121 tgctaaccga ggtggtctat tctaacggcg gttttattt aaaaccagggt ggtacgacat
181 cgggtgatgc aacgacggct tatgccaatt cagtgttaa tttttcaa gcagtcagtg
241 ctaacattaa tcgcattttg ggcgtaata gcaactctg caataactg acagttaaa
301 gtttgacgcg ttctctgat gacaattgtt atgcactag tactgtagac cctgcctttg
361 tagacacatt ttatggttac ttacgcaaac atttctctat gat

//

LOCUS MN312286 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 6609 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312286

VERSION MN312286

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
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/db_xref="taxon:693998"
/country="China"
gene <1..>402
/gene="RdRp"

CDS <1..>402
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/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87906"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFRYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 atagagctat gcctagatg atccgcatgc ttgctgctat ggttcttga tcaaagcatg
61 ttacatgttg tacagacagt gataggttt acagacttc taatgaactt gcacaagtc
121 ttaatgaggt tgtacattc aatggaggt tctatgtaa acccggtggc actacatcag
181 gtgatgctac aactgctat gcaaactctg tcttaatat ttccaggca gttagcteta
241 atattaatag gcttcttct gtgatagta atgtgtgtaa caattatat gtcaaaaagc
301 tcagcgcctc tatctatgac aactgttata gatctagtgc tgttgatgac aatgttgta
361 cagaatttta taactatctt aagaagcatt tttctatgat ga

//

LOCUS MN312287 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 6610-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312287
VERSION MN312287
KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8
ORGANISM Miniopterus bat coronavirus HKU8
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.
REFERENCE 1 (bases 1 to 400)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 400)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..400
/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="6610-1"
/host="Miniopterus fuliginosus"
/db_xref="taxon:694001"
/country="China"
gene <1..>400
/gene="RdRp"
CDS <1..>400
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87907"

/translation="RALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSLQR
MLYDNCYRSSAVDPGFVDTFYGYLRKHFSMM"

ORIGIN

1 cagagcattg cccaacatga ttcgatgat ttctgctatg attttgggtt ctaagcatgt
61 taattgtgt accaattcag atcgttatta tagactctgt aatgagcttg cacaagttct
121 tactgaagtt gtctattcta atgggtggtt ctatatgaag cctggtggtgta ctacatctgg
181 tgatgccact acagcctatg ctaattctgt tttcaacata ttccaggccg ttagtgctaa
241 tattaacagg attttgggta ttaatagtaa tacctgtaat aatcttgctg ttaagtcct
301 acagcgcgatg ctttatgaca attgttatag aagttctgct gttgaccctg gttttgtga
361 tacttttat ggctatttgc ggaagcactt ctctatgatg

//

LOCUS MN312288 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 6610-2 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312288

VERSION MN312288

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="6610-2"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2419667"
/country="China"

gene <1..>402
/gene="RdRp"

CDS <1..>402
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87908"
/translation="RALPNMIRMISAMILGSKHVNCCTASDRYYRLCNELAQVLTEVV
HSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSIQR
MLYDNCYRTSAVDAGFVDTFYGYLRKHFSMM"

ORIGIN

1 atagagcact tccaatatg atacgcatga ttctgcat gattcttggg tctaagcatg
61 ttaactgttg tactgcttct gatagatatt accgccttg taatgagttg gtcaggtcc
121 tcaactgaggt cgttcattct aatggaggct tctatatgaa gcctgggtgg actacctctg
181 gtgatgctac tacagcttat gctaattctg tgttaacat ctttcaggct gtcagtgcc
241 atattaatcg tatattgggtg attaacagca atacatgtaa taaccttact gtaagtcta
301 tccagcgtat gttgtacgat aactgttacc gtacttctgc tgtggacgct ggttttgtcg
361 acactttcta tggttatctt agaaagcact ttctatgat ga

//

LOCUS MN312289 416 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7343 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312289

VERSION MN312289

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 416)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 416)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..416

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7343"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>416

/gene="RdRp"

CDS <1..>416

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87909"

/translation="DYPKCDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQ

VLNEVVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLY

VKKLQRSIYDNCYRSSAVDDTVVTFYNYLKKHFSM"

ORIGIN

1 gattatccta aatgtgatag agctatgcct agtatgatac gtatgcttgc tgctatggtt
61 cttggatccta agcaggttac atgttgatac gacagtgata ggttttacag actttctaac
121 gaacttgcgc aagttcttaa tgaagttgtg cattctaacg gaggttttta tgtaaaacct
181 ggtggcacta catcaggtga tgctacaact gcttatgcaa attctgtttt taacatcttt
241 caggcagta gctctaacat taataggctt ctttctgttg atagtaatgt gtgtaacaac

301 ttgatgtca aaaagcttca gcgctctatc tatgacaatt gttataggtc tagtgctgtt
361 gatgacactg ttgttacaga cttctacaac tatcttaaga agcatttttc tatgat

//

LOCUS MN312290 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU10 isolate 7345 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312290

VERSION MN312290

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="7345"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="China"

gene <1..>407

/gene="RdRp"

CDS <1..>407

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87910"

/translation="DRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTEV

VYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTLQ

RELYDNCYRSSVDEQFVDKYYCYLRKHFSMMI"

ORIGIN

1 gtgatagagc attgectaac atgatacgca tgatttctgc tatgatactt ggttctaaac
61 atacaacatg ttgtactact gatgagaggt actaccgatt gtgtaatgaa ttggcccaag
121 ttttaacaga agttgtgtat tctaatggtg gtttttatt taaacctggt ggtactact
181 caggagatgc atctacagcc tatgctaact cagtctttaa catttttcag gcagtcagtt
241 ctaacattaa cagattgttg actatcgaca gcaatgtttg taataatggt agtgtcaaaa
301 ctctacaaag agagttgtat gacaactgct acagatcadc aagtgttgac gaacaattcg
361 tagataagta ttattgctat ttacgcaagc acttttctat gatgatt

//

LOCUS MN312291 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7347 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.
 ACCESSION MN312291
 VERSION MN312291
 KEYWORDS .
 SOURCE Rhinolophus bat coronavirus HKU2
 ORGANISM Rhinolophus bat coronavirus HKU2
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.
 REFERENCE 1 (bases 1 to 406)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 406)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
 FEATURES Location/Qualifiers
 source 1..406
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="7347"
 /host="Rhinolophus sinicus"
 /db_xref="taxon:693998"
 /country="China"
 gene <1..>406
 /gene="RdRp"
 CDS <1..>406
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87911"
 /translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV
 VHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ
 RSIYDNCYRSSAVDDAVVTDFYNYLKKHFSMMI"
 ORIGIN
 1 tgatagagct atgcctagta tgatacgtat gtttgetgct atggttcttg gatctaagca
 61 cgttacatgt tgtacagaca gtgataggtt ttacagactt tctaacgaac ttgcgcaagt
 121 tcttaatgag gttgtgcatt ctaatggagg ttttatgta aaacctggtg gcactacatc
 181 aggtgatgct acaactgctt atgcaaattc tgttttaac atcttcagg cagtagctc
 241 taacattaac aggtctctt ctgtgatag taatgtgtg aacaactgt atgcaaaaa
 301 gcttcagegc tctatctatg acaattgta taggtctagt gctgtgatg acgctgtgtg
 361 tacagactc tacaactatc ttaagaagca ttttctatg atgatt
 //
 LOCUS MN312292 409 bp RNA linear VRL 07-NOV-2019
 DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7348 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.
 ACCESSION MN312292
 VERSION MN312292
 KEYWORDS .
 SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7348"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87912"
/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDNVVTEFYNYLKKHFSMMILTDD"

ORIGIN

1 atgectagta tgatccgcat gcttgctgct atggttcttg gatcaaagca tgttacatgt
61 tgtacagaca gtgataggtt ttacagactt tctaatgaac ttgcacaagt tcttaatgag
121 gttgtacatt ccaatggagg ttttatgta aaaccgggtg gcactacatc aggtgatgct
181 acaactgctt atgcaaactc tgtctttaat atttccagg cagttagctc taacattaat
241 agacttcttt ctgttgatag taatgtgtgt aacaattat atgtaaaaaa gcttcagcgc
301 ttatctatg ataattgta tagatctagt gctgttgatg acaatgtgt tacagaattt
361 tataactatc ttaagaagca ttctctatg atgatttaa ctgatgatg

//

LOCUS MN312293 400 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7349 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312293

VERSION MN312293

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 400)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..400
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7349"
/host="Rhinolophus sinicus"
/db_xref="taxon:693998"
/country="China"
gene <1..>400
/gene="RdRp"
CDS <1..>400
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87913"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 agagctatgc ctagtatgat tcgcatgctt gctgctatgg ttcttgatc aaagcatgtt
61 acatgttgta cagacagtga taggttttac agactttcta atgaacttgc acaagtctt
121 aatgaggttg tacattccaa tggagggttc tatgtaaaac ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgtc ttaatatatt tccaggcagt tagctcfaat
241 attaatagtc ttctttctgt tgatagtaat gttgtgaaca atttatatgt caaaaagctt
301 cagcgtccta tctatgacaa ctgttataga tctagtgtg ttgatgacaa tgttgttaca
361 gaattttata actatcttaa gaagcatttt tctatgatga

//

LOCUS MN312294 404 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7352 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312294
VERSION MN312294
KEYWORDS .
SOURCE Rhinolophus bat coronavirus HKU2
ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.
REFERENCE 1 (bases 1 to 404)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 404)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..404
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7352"
/host="Rhinolophus sinicus"
/db_xref="taxon:693998"
/country="China"
gene <1..>404
/gene="RdRp"
CDS <1..>404
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87914"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMI"

ORIGIN

1 atagagctat gcctagtatg atccgcatgc ttgctgctat ggttcttga tcaaagcatg
61 ttacatgttg tacagacagt gataggttt acagacttc taatgaact gcacaagtc
121 ttaatgaggt tgtacattct aatggaggt tctatgtaa acctggtggc actacatcag
181 gtgatgctac aactgctat gcaaactctg tcttaatat ttccaggca gttagctcta
241 acattaatg actctttct gttgatagta atgtgtgtaa caattatat gtaaaaaagc
301 tcagcgcgc tatctatgat aattgttata gatctagtgc tgttgatgac aatgttgta
361 cagaatttta taactatctt aagaagcatt tctctatgat gatt

//

LOCUS MN312295 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 7355 RNA-dependent RNA polymerase (RdRp) gene, partial cds.
ACCESSION MN312295
VERSION MN312295
KEYWORDS .
SOURCE Miniopterus bat coronavirus HKU8
ORGANISM Miniopterus bat coronavirus HKU8
Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Alphacoronavirus; Minunacovirus.
REFERENCE 1 (bases 1 to 408)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J., Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 408)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J., Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..408
 /organism="Miniopterus bat coronavirus HKU8"
 /mol_type="genomic RNA"
 /isolate="7355"
 /host="Miniopterus fuscus"
 /db_xref="taxon:694001"
 /country="China"
 gene <1..>408
 /gene="RdRp"
 CDS <1..>408
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87915"
 /translation="CDRALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTE
 VVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSL
 QRMLYDNCYRSSAVDPGFVDTFYGYLRKHFSMMI"

ORIGIN

1 tgtgatagag cattgcctaa catgattcgt atgatttctg ctatgatttt gggttctaag
 61 catgttaatt gttgtaccaa ttcagatcgt tattatagac ttgtaatga acttgcacaa
 121 gttctactg aggtggtcta ttctaacggt ggtttctata tgaagcctgg tggactact
 181 tctggtgatg ccactactgc ctatgccaat tctgtttca acatattcca ggctgtagt
 241 gctaataatta ataggatttt gggtattaat agtaataacct gtaataatct tactgttaag
 301 tcaactcage gcattgctcta tgacaattgt tatagaagtt ctgccgttga tcttggtttt
 361 gttgatacgt ttatgggcta cttgcgtaag catttcteta tgatgatt

//

LOCUS MN312296 394 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat coronavirus 1 isolate 7359 RNA-dependent RNA polymerase (RdRp)
 gene, partial cds.

ACCESSION MN312296

VERSION MN312296

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; unclassified
 Alphacoronavirus.

REFERENCE 1 (bases 1 to 394)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 394)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..394
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"

/isolate="7359"
/host="Miniopterus fuscus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>394
/gene="RdRp"
CDS <1..>394
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87916"
/translation="ALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVY
SNGGFYLKPGGTTSGDATTA YANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQRS
LYDNCYRTSTVDPAFVDTFYGYLRKHFSM"

ORIGIN

1 gcattgccta atatgattcg tatgatatcc gccatgattt tgggttccaa gcatgagaat
61 tgttgtagca actctgatcg ttattataga ctatgcaatg agttagctca agtgctaact
121 gaggtagtct attctaattg tggttttat ttaaaccag gtggtacgac atcgggtgat
181 gcaacgacgg cttatgcaa ctctgtgttt aatatcttc aagcagtcag tgctaacatt
241 aatcgcatac tgggcgtaa tagcaatact tgtaataact taacagtaa agatttgcag
301 cgctcgttgt atgacaattg ttatcgcaact agcactgtag accctgcett tntagacacg
361 tttatggct acttacgcaa acatttctct atga

//

LOCUS MN312297 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 7360 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312297

VERSION MN312297

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Miniopterus bat coronavirus HKU8"

/mol_type="genomic RNA"

/isolate="7360"

/host="Miniopterus fuscus"

/db_xref="taxon:694001"

/country="China"

gene <1..>402

CDS /gene="RdRp"
<1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87917"
/translation="RALPNMIRMISAMILGSKHVNCCNSDRYYRLRNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANVNRILGINSNTCNNLTVKSLQR
MLYDNCYRSSAVDPGFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaacatgat tcgtatgatt tctgctatga tttggggtc taagcatggt
61 aattgttga ccaattcaga tcgtattat agacttcgta atgaactgc acaagttctt
121 actgaggtgg tctattctaa cgggtggttc tatatgaagc ctggtggtac tacttctggt
181 gatgccacta ctgcctatgc caattctggt tcaacatat tccaggctgt tagtgctaat
241 gtaaatagga tttgggtat taatagtaat acctgtaata atcttactgt taagtcactt
301 cagcgcgatgc tctatgacaa ttgttataga agttctgccg ttgatcctgg tttgttgat
361 acgttttatg gctacttgcg taagcatttc tctatgatga tt

//

LOCUS MN312298 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7369 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312298

VERSION MN312298

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="7369"
/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"

gene <1..>408
/gene="RdRp"

CDS <1..>408
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87918"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDL
QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 tgtgatagag cattgcctaa tatgattcgt atgatatccg ccatgatttt gggttccaag
61 catgagaatt gttgaccaa cctcgtcgt tattatagac tatgtaatga gttagctcaa
121 gtgctaactg aggtagtcta ttctaattgg ggtttttatt taaaaccagg tggtagcaca
181 tcgggtgatg caacaacggc ttatgccaac tctgtgttta acattttca agcagtcagt
241 gctaacatta atcgcatact gggcggttaat agcaatactt gtaataactt aacagttaa
301 gattgcagc gctcgttga tgataattgt tatcgcata gcaactgtga cctgccttt
361 gtagacacct ttatgggta cttacgcaaa catttcteta tgatgatt

//

LOCUS MN312299 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7385 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312299

VERSION MN312299

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7385"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>405
/gene="RdRp"

CDS <1..>405
/gene="RdRp"
/codon_start=2

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87919"
/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV
VHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ
RSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMM"

ORIGIN

1 tgatagact atgcctagta tgaaccgcat gcttgctgct atggttcttg gatcaaagca
61 tgttacatgt tgtacagaca gtgatagggt ttacagactt tctaatgaac ttgcacaagt
121 tcttaatgag gttgtacatt ccaatggagg ttttatgta aaacccgggtg gcactacatc
181 aggtgatgct acaactgctt atgcaaactc tgtctttaat atttccagg cagttagctc
241 taacattaat agacttcttt ctggtgatag taatgtgtgt aacaatttat atgtaaaaaa
301 gcttcagcgc tctatctatg ataattgta tagatctagt gctgtgatg acaatgtgt
361 tacagaattt tataactatc ttaagaagca tttctctatg atgat

//

LOCUS MN312300 407 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate 7389 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312300

VERSION MN312300

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407

/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="7389"
/host="Miniopterus fuscus"
/db_xref="taxon:694001"
/country="China"

gene <1..>407

/gene="RdRp"

CDS <1..>407

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87920"

/translation="DRALPNMIRMISAMILGSKHVNCTNSDRYYRLCNELAQVLTEV

VYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSLQ

RMLYDNCYRSSAVDPGFVDTFYGYLRKHFSMMI"

ORIGIN

1 gtgacgtgc attgcctaac atgattcgta tgattctgc tatgatttg gtttctaage
61 atgttaattg ttgtaccaat tcagatcggtt attatagact ttgtaatgaa cttgcacaag
121 ttcttactga ggtggtctat tctaacgggtg gtttctatat gaagcctggt ggtactactt
181 ctggtgatgc cactactgcc tatgccaatt ctgtttcaa catattccag gctgttagtg

241 ctaatattaa taggatttg ggtattaata gtaatactg taataatctt actgttaagt
301 cacttcagcg catgctctat gacaattgtt atagaagttc tgccgttgat cctggtttg
361 ttgatacgtt ttatggctac ttgcgtaage atttctctat gatgatt

//

LOCUS MN312301 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7424 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312301

VERSION MN312301

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7424"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87921"
/translation="RAMPSMIRMLAAMVLGPKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMI"

ORIGIN

1 agagctatgc ctagtatgat tcgcatgctt gctgctatgg ttcttgacc aaagcatgtt
61 acatgttgta cagacagtga taggttttac agactttcta atgaactgc acaagtctt
121 aatgaggttg tacattccaa tggaggtttc tatgtaaac ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgct ttaatatatt tccaggcagt tagctctaat
241 attaatagc ttctttctgt tgatagtaat gttgtgaaca atttatatgt caaaaagctt
301 cagcgtctta tctatgacaa ctgttataga tctagtctg ttgatgacaa tgttgttaca
361 gaattttata actatcttaa gaagcatttt tctatgatga tt

//

LOCUS MN312302 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 7426 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312302

VERSION MN312302

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="7426"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87922"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL

QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSSMMI"

ORIGIN

1 tgtgatagag cattgcctaa tatgatccgt atgatatccg ccatgatttt gggttctaag
61 catgagaatt gttgactaa ctctgaccgt tattatagac tatgcaacga gttggetcaa
121 gtgctaaccg aggtagtcta ttctaattggc ggtttttatt taaaaccagg tggtagcaca
181 tcgggtgatg caacgacggc ttatgccaat tcagtgttta atatcttca agcagtcagt
241 gctaacatta atcgcatttt gggcgtaaat agcaatactt gtaataactt gacagttaag
301 agtttgcagc gctctctgta tgacaattgt tatgcacta gtactgtgga cctgccttt
361 gtagacacat tttatggta cttacgcaaa catttttcta tgatgatt

//

LOCUS MN312303 421 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7438 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312303

VERSION MN312303

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 421)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 421)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..421

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7438"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>421

/gene="RdRp"

CDS <1..>421

/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87923"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMIQLM"

ORIGIN

1 aatgtgatag agctatgcct agtatgatcc gcatgcttgc tgctatgggt cttggatcaa
61 agcatgttac atgttgata gacagtata ggtttacag actttctaat gaactgcac
121 aagtcttaa tgagggtgta cattccaatg gaggtttta tgtaaaacc ggtggcacta
181 catcaggtga tgctacaact gcttatgcaa actctgtctt taatatttc caggcagta
241 gctctaacaat taatagactt cttctgttg atagtaatgt gtgtaacaat ttatatgaa
301 aaaagcttca gcgctctatc tatgataatt gttatagatc tagtgctgtt gatgacaatg
361 ttgttacaga atttataac tatcttaaga agcatttctc tatgatgatt caactgatga
421 t

//

LOCUS MN312304 370 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 7473 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312304

VERSION MN312304

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="7473"

/host="Miniopterus sp."

/db_xref="taxon:2419667"

/country="Laos"

gene <1..>370

/gene="RdRp"

CDS <1..>370

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87924"

/translation="CDRALPNMIRMISAMILGSKHVNCCTASDRYYRLCNELAQVLTE

VVHSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSI

QRMLYDNCYRTSAVDSGFVDT"

ORIGIN

1 aatgtgatag agcacttct aatgatgac gtatgatc agccatgatt cttggtcca
61 aacatgtaa ctgtgtact gcctctgata ggtattatcg cctttgtaat gagggtgctc
121 aggtcttac tgaagtcgtc cattcaaatg gtggttcta tatgaaacct ggcggtacta
181 ctctgggta tgctacaaca gcttatgcca attctgtgt taacatttc caagctgta
241 gtgccaatat caatcgata ttgggcatta atagcaacac atgtaacaat cttactgta
301 agtctataca gcgtatgtg tacgacaatt gttatcgtac ttccgctgt gactctggt
361 ttgtgacac

//

LOCUS MN312305 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 7476 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312305

VERSION MN312305

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..402
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="7476"
/host="Miniopterus fuscus"
/db_xref="taxon:2042696"
/country="Laos"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87925"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTS GDATT VYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQR
SLYDNCYRTSTVDP AFDVDFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatgat tcgtatgata tccgcatga tttgggttc caagcatgag
61 aattgttga ccaactcga tcgtattat agactatgta atgagttagc tcaagtgcta
121 actgaggtag tctattctaa cgggtggttt tattaaaac caggtggtac gacatcgggt
181 gatgcaacga cggtttatgc caactctgtg ttaacattt tcaagcagt cagtgctaac
241 attaatcga tactgggcgt caatagcaat acttgtaata acttaacagt taaagattg
301 cagcgtcgt tgtatgataa ttgtatcgc actagcactg tggaccctgc cttttagac
361 acctttatg gtactactag caaacattc tctatgatga tt

//

LOCUS MN312306 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7477 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312306

VERSION MN312306

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="7477"

/host="Miniopterus sp."

/db_xref="taxon:2042696"

/country="Laos"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87926"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV

YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQR

SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatgat tcgtatgata tccgcatga tttgggttc taagcatgag
61 aattgttga ccaattctga tcgtattac agactatgca atgagttagc tcaagtgcta
121 actgaggtag tctattctaa tgggtgttt tacttaaac caggtggtac gacatcgggt
181 gatgcaacga cagcttatgc caattctgtg ttaatatct tcaagcagt cagtgctaac
241 attaatgca tactgggcgt taatagcaat acttgaata attaacagt taaagattg
301 cagcgtcgt tgtatgataa ttgtatcgc actagcactg tagaccctgc cttgtagac
361 acatttatg gttacttac caaacatttc tctatgatga tt

//

LOCUS MN312307 376 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate 7496 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312307

VERSION MN312307

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..376
 /organism="Bat coronavirus HKU10"
 /mol_type="genomic RNA"
 /isolate="7496"
 /host="Aselliscus stoliczkanus"
 /db_xref="taxon:1244203"
 /country="Laos"
gene <1..>376
 /gene="RdRp"
CDS <1..>376
 /gene="RdRp"
 /codon_start=3
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87927"
 /translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE
 VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL
 QRELYDNCYRSSSVDEQVIDKYT"

ORIGIN

1 aatgtgatag agcattgccc aacatgatac gcatgatttc tgctatgatt cttggttcta
61 aacacacgac atgttgact accgatgagc ggtattacag gttgtgcaat gaactggctc
121 aagttttgac agaagtcgtg tattctaata gtggttttta tttcaaacct ggtgggtacta
181 catctggtga tgcatttaca gcctatgcta actcagtttt taacatattt caggcagtca
241 gttetaacat taacagattg ttgactatcg acagcaatgt gtgtaacaat gtagtgta
301 aaactcttca aagagaattg tatgacaact gctacaggtc atcaagtgtc gacgaacaag
361 tcatagacaa gtatac

//

LOCUS MN312308 373 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU10 isolate 7546 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312308

VERSION MN312308

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373
 /organism="Bat coronavirus HKU10"
 /mol_type="genomic RNA"

/isolate="7546"
/host="Hipposideros pomona"
/db_xref="taxon:1244203"
/country="Laos"
gene <1..>373
/gene="RdRp"
CDS <1..>373
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87928"
/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL
QRELYDNCYRSSSVDEQVIDKY"

ORIGIN

1 atgtgataga gcattgcecca acatgatacag catgatttct gctatgattc ttggttctaa
61 acatacgaca tgtgtacca cccatgagcg gtattacagg ttgtgcaatg aactggctca
121 agttttgaca gaagtcgtgt attctaattgg tggttttat ttaaacctg gtggactac
181 atctggtgat gcatctacag cctatgctaa ctcaagtttt aatatattc aggcagtcag
241 ttctaacatt aacagattgt tgactatcga cagcaatgtg tgtaacaatg ttagtgctaa
301 aactcttcaa agagaattgt atgacaactg ctacaggtca tcaagtgtcg acgacaagt
361 catagacaag tat

//

LOCUS MN312309 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 7548 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312309

VERSION MN312309

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="7548"
/host="Miniopterus sp."
/db_xref="taxon:2419667"
/country="Laos"

gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87929"
/translation="CDRALPNMIRMISAMILGSKHVNCCTASDRYYRLCNELAQVLTE
VVHNSGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSI
QRMLYDNCYRTSAVDSGFVDT"

ORIGIN

1 aatgtgatag agcaacttct aatatgatac gtatgatatac agccatgatt cttggttcta
61 aacatgtaa ctgtgtact gcctctgata ggtattatcg cctttgtaat gagttggctc
121 aggttcttac tgaagtcgtc cattcaaatg gtggtttcta tatgaaacct ggcggtacta
181 ctcttggtga tgccacaaca gcttatgcta attctgtgtt taacatttcc caagctgtta
241 gtgccaatat taatcgtata ttgggcatta atagcaatac atgtaataac cttactgtta
301 agtctataca gcgtatgtg tacgacaatt gttatcgtac ttctgctgtt gactctgget
361 ttgtcgacac

//

LOCUS MN312310 376 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU10 isolate 7549 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312310

VERSION MN312310

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376
/organism="Bat coronavirus HKU10"
/mol_type="genomic RNA"
/isolate="7549"
/host="Hipposideros pomona"
/db_xref="taxon:1244203"
/country="Laos"

gene <1..>376
/gene="RdRp"

CDS <1..>376
/gene="RdRp"
/codon_start=3

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87930"
/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL
QRELYDNCYRSSSVDEQLIDKY"

ORIGIN

1 aatgtgatag agcattgcc aacatgatac gcatgattc tgctatgatt ctgggttcta
61 aacacacgac atgtgtacc accgatgagc ggtattacag attgtgcaat gaactggctc
121 aagttttgac agaagtcgtg tattctaagtg gggccttta ttcaaacct ggtggtacta
181 catctgggtga tgcactaca gcctatgcta actcagttt taacatatt caggcagtca
241 gtctaacaat taacagattg ttgactatcg acagcaatgt gtgtaataat gttagtgtca
301 aaactctca aagagaattg tatgacaact gctacaggtc atcaaggtgc gacgaacagc
361 tcatagaaa gtatta

//

LOCUS MN312311 380 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate 7557 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312311

VERSION MN312311

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 380)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 380)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..380

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="7557"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="Laos"

gene <1..>380

/gene="RdRp"

CDS <1..>380

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87931"

/translation="KCDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLT

EVVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKT

LQRELYDNCYRSSSVDEQIIDKYT"

ORIGIN

1 aaatgtgata gagcattgcc caacatgata cgcgatgatt ctgctatgat tcttggttct
61 aaacatacga catgtgtac caccgatgag cggattaca ggtgtgcaa tgaactggct
121 caagtttga cagaagtcgt gtattctaatt ggtggtttt attttaaac tggtggtact
181 acatctggtg atgcatctac agcctatgct aactcagttt ttaatatt tcaggcagtc
241 agttctaaca ttaacagatt gttgactatc gacagcaatg tgtgtaacaa tgtagtgc
301 aaaactcttc aaagagaatt gtatgacaac tgctacaggt catcaagtgt cgacgaacag
361 atcatagaca agtatacggga

//

LOCUS MN312312 376 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate 7560 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312312

VERSION MN312312

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376

/organism="Bat coronavirus HKU10"
/mol_type="genomic RNA"
/isolate="7560"
/host="Hipposideros pomona"
/db_xref="taxon:1244203"
/country="Laos"

gene <1..>376

/gene="RdRp"

CDS <1..>376

/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87932"
/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL
QRELYDNCYRSSSVDEQVIDKYT"

ORIGIN

1 aatgtgatag agcattgccc aacatgatac gcatgatttc tgctatgatt ctgggttcta
61 aacacacgac atgtgtgacc accgatgagc ggtattacag attgtgcaat gaactggctc
121 aagttttgac agaagtcgtg tattctaattg gttggcttta ttcaaacct ggtggtacta
181 catctggtga tgcactaca gcctatgcta actcagtttt taacatatt caggcagtc

241 gttctaacaat taacagattg ttgactatcg acagcaatgt gtgtaataat gttagtgtca
301 aaactcttca aagagaattg tatgacaact gctacaggtc atcaagtgtc gacgaacaag
361 tcatagacaa gtatac

//

LOCUS MN312313 377 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 7562 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312313

VERSION MN312313

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..377

/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="7562"
/host="Miniopterus fuscus"
/db_xref="taxon:694001"
/country="Laos"

gene <1..>377

/gene="RdRp"

CDS <1..>377

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87933"

/translation="CDRALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSL
QRMLYDNCYRSSAVDPGFVDTYM"

ORIGIN

1 aatgtgatag agcattgcct aacatgattc gtatgattc tgctatgatt ttgggttcta
61 agcatgtaa ttgtgtacc aattcagatc gtattatag actttgtaac gaactgcac
121 aagttcttac tgaggtggtc tattctaacc ggggttcta tatgaagcct ggtggtacta
181 ctctggtga tgccactact gcctatgcta attctgttt caacatattc caggctgta
241 gtgccaatat taataggatt ttgggtatta atagtaatac ctgtaataat ctactgta
301 agtcactca gcgcattgct tatgacaatt gttatagaag ttctgccgtt gatcctggtt
361 ttgttgatac gtatatg

//

LOCUS MN312314 378 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate 7565 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312314

VERSION MN312314

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 378)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 378)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..378

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="7565"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="Laos"

gene <1..>378

/gene="RdRp"

CDS <1..>378

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87934"

/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE

VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL

QRELYDNCYRSSSVDEQVIDKYT"

ORIGIN

1 aatgtgatag agcattgcc aacatgatac gcatgattc tgctatgatt cttggttcta
61 aacatacgac atgttgacc accgatgagc ggtattacag gttgtgcaat gaactggctc
121 aagtttgac agaagtcgtg tattctaagtg gtggtttta ttttaaacct ggtggtacta
181 catctggtga tgcattaca gcctatgcta actcagttt taatatatt caggcagtc
241 gtctaacat taacagattg ttgactatcg acagcaatgt gtgtaacaat gtagtgctc
301 aaactctca aagagaattg tatgacaact gctacaggtc atcaagtgtc gacgaacaag
361 tcatagaaa gtatacgg

//

LOCUS MN312315 375 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate 7589 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312315

VERSION MN312315

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="7589"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="Laos"

gene <1..>375

/gene="RdRp"

CDS <1..>375

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87935"

/translation="KCDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLT

EVVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKT

LQRELYDNCYRSSSVDEQVIDKY"

ORIGIN

1 aaatgtgata gagcattgcc caacatgata cgcgatgatt ctgctatgat tcttggttct
61 aaacatacga catgttgtag caccgatgag cggattaca ggtgtgcaa tgaactggct
121 caagtttga cagaagtcgt gtattctaat ggtggtttt attttaaacc tgggtgtact
181 acatctggtg atgcatctac agcctatgct aactcagttt ttaatatt tcaggcagtc
241 agttctaaca ttaacagatt gttgactatc gacagcaatg tgtgtaaca tgtagtgc
301 aaaactcttc aaagagaatt gtatgacaac tgctacaggt catcaagtgt cgacgaaca
361 gcatagaca agtat

//

LOCUS MN312316 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 7683 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312316

VERSION MN312316

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES

Location/Qualifiers

source 1..402
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="7683"
/host="unknown"
/db_xref="taxon:2042696"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87936"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSSMMI"

ORIGIN

1 agagcattgc ctaatatgat tcgtatgata tccgcatga ttttgggttc taagcatgag
61 aattgttga ccaacttga tcgtattat agactatga atgagtagc tcaagtgcta
121 actgagtag tctattctaa tgggtgttt tatttaaac caggtggtac tacatcgggt
181 gatgcaacga cggttatgc caactctgtg ttaatatct tcaagcagt tagtgtaac
241 attaacgca tactggcgt taatagcaat acttgaata acttaacagt taaagattg
301 cagcgtcgt tgatgacaa ttgtatcgc actagcactg tagaccctgc cttttagac
361 acgtttatg gtacttacg caaacattc tctatgatga tt

//

LOCUS MN312317 397 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7694 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312317

VERSION MN312317

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 397)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 397)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..397
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="7694"
/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>397
/gene="RdRp"
CDS <1..>397
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87937"
/translation="ALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVY
SNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQRS
LYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 agcattgctt aatatgattc gttatgatc cgccatgatt ttgggttcca agcatgagaa
61 ttgttgacc aactctgac gttattatag actatgcaat gagttagctc aagtgctaac
121 tgaggtagtc tattctaag gtggttttta ttaaaacca ggtgttacga catcgggtga
181 tgcaacgacg gcttatgcca actctgtgtt taatatctt caagcagtc gtgctaaca
241 taatcgata ctgggcgta atagcaatac ttgtaataac ttaacagta aagattgca
301 gcgctcgtg tatgacaatt gttatcgac tagcactgta gaccctgcct tttagacac
361 gtttatggc tacttacgca aacattctc tatgatg

//

LOCUS MN312318 403 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7700 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312318
VERSION MN312318
KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2
ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 403)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7700"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>403
/gene="RdRp"
CDS <1..>403
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87938"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSM"

ORIGIN

1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag
61 catgttacat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcacaa
121 gtcttaatg aggtgtgaca ttcaatgga ggttttatg taaacccgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaac tctgtctta atatttcca ggcagttagc
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcttaagaag catttctcta tga

//

LOCUS MN312319 398 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7703 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312319

VERSION MN312319

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..398

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7703"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>398
/gene="RdRp"
CDS <1..>398
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87939"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFSM"

ORIGIN

1 agagctatgc ctagtatgat tcgcatgctt gctgctatgg ttcttggatc aaagcatgtt
61 acatgttgta cagacagtga taggttttac agactttcta atgaacttgc acaagtctt
121 aatgaggttg tacattccaa tggagggttc tatgtaaaac ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgtc tttaatattt tccaggcagt tagctcctaat
241 attaataggc ttcttctgt tgatagtaat gtgtgtaaca atttatatgt caaaaagctt
301 cagcgtccta tctatgacaa ctgttataga tctagtctg ttgatgacaa tgttgttaca
361 gaattttata actatcttaa gaagcatttt tctatgat

//

LOCUS MN312320 398 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7874 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312320
VERSION MN312320
KEYWORDS .
SOURCE Rhinolophus bat coronavirus HKU2
ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.
REFERENCE 1 (bases 1 to 398)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 398)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..398
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7874"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"

gene /country="China"
<1..>398
/gene="RdRp"
CDS <1..>398
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87940"
/translation="AMPSLIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVVH
SNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRS
IYDNCYRSSAVDDTVVTDYFNYLKKHFSMM"

ORIGIN

1 agctatgcct agtttgatac gtatgcttgc tgctatgggt cttggatcta agcacgttac
61 atgttgatac gacagtatac ggttttacag actttctaata gaacttgctc aagttcttaa
121 tgaagtgttg cattctaata gaggtttta tgtaaacc cggggcacca catcaggtga
181 tgctacgact gcttatgcaa attctgttt taacatctt caggcagta gctctaata
241 taacaggett ctttctgtg atagtaatgt gtgtaacaat ttgtatgca aaaagctcca
301 gcgctctatc tatgacaatt gttataggtc tagtgctgt gatgactg ttgttacga
361 cttttataac tatcttaaga agcactttc tatgatga

//

LOCUS MN312321 400 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7895 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312321

VERSION MN312321

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7895"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>400
/gene="RdRp"

CDS <1..>400
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87941"
/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDTVVTDFFNYLKKHFSMM"

ORIGIN

1 agagctatgc ctagtatgat acgtatgctt getgctatgg ttcttggatc taagcacggt
61 acatgttga cagacagtga taggttttac agactttcta acgagcttgc gcaagtctt
121 aatgaagttg tgcattctaa cggagggttt tatgtaaaac ctggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaattctgtt ttaacatct ttcaggcagt tagctctaac
241 attaataggc ttctttctgt tgatagtaat gtgtgtaaca acttgtatgt caaaaagctt
301 cagcgctcta tctatgacaa ttgttatagg tctagtgtg ttgatgacac tgttgttaca
361 gacttctaca actatcttaa gaagcatttt tctatgatga

//

LOCUS MN312322 395 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7896 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312322

VERSION MN312322

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 395)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 395)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..395

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7896"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

gene <1..>395

/gene="RdRp"

CDS <1..>395

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87942"

/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVI
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR

SIYDNCYRSSAVDDNVVTEFYNYLKKHFS"

ORIGIN

1 agagctatgc ctagtatgat ccgcatgctt gctgctatgg ttcttggatc aaagcatgtt
61 acatgttgta cacagactga taggttttac agacttteta atgaacttgc acaagtctt
121 aatgaggtta tacattccaa tggagggttt tatgtaaac ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgtc ttaatatatt tccaggcagt tagctctaac
241 attaatagac ttctttctgt tgatagtaat gtgtgtaaca atttatatgt aaaaaagctt
301 cagcgtctta tctatgataa ttgttataga tctagtgtcg ttgatgacaa tgttgttaca
361 gaattttata actatcttaa gaagcatttc tctat

//

LOCUS MN312323 385 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7898 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312323

VERSION MN312323

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 385)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 385)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..385

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7898"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>385

/gene="RdRp"

CDS <1..>385

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87943"

/translation="WDYPKCDRAMP MIRMLAAMVLGSKHVTCTDSDRFYRLSNELA
QVLNEVVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNL
YVKKLQRSIYDNCYRSSAVDDTVVTD"

ORIGIN

1 ttgggattat cctaaatgtg atagagctat gcctagtatg atacgtatgc ttgctgctat
61 ggttcttggg tctaagcacg ttacatgttg tacagacagt gataggtttt acagactttc
121 taacgaactt gcgcaagttc ttaatgaagt tgtgcattct aacggagggt tttatgtaa

181 acctggtggc actacatcag gtgatgctac aactgcttat gcaaattctg ttttaacat
241 ctttcaggca gtagcteta acattaatag gcttcttct gttgatagta atgtgtgtaa
301 caactgtat gtcaaaaage ttcagegctc tatctatgac aattgttata ggtctagtgc
361 tgttgatgac actgttgta cagac

//

LOCUS MN312324 393 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7899 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312324

VERSION MN312324

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..393

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7899"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"

gene <1..>393

/gene="RdRp"

CDS <1..>393

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87944"

/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDFYRLSNELAQVLNEVI
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTEFYNYLKKHFS"

ORIGIN

1 agagctatgc ctagtatgat ccgcatgctt gctgctatgg ttcttgatc aaagcatgtt
61 acatgttgta cagacagtga taggttttac agactttcta atgaacttgc acaagttctt
121 aatgaggta tacattccaa tggaggtttt tatgtaaac ccggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaactctgtc tttaatattt tccaggcagt tagctctaac
241 attaatagac ttctttctgt tgatagtaat gtgtgtaaca atttatatgt aaaaaagctt
301 cagcgetcta tetatgataa ttgttataga tctagtctgt ttgatgacaa tgttgttaca
361 gaattttata actatcttaa gaagcatttc tct

//

LOCUS MN312325 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7901 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312325

VERSION MN312325

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7901"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87945"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE

VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCCNNLYVKKL

QRSIYDNCYRSSAVDDTVVTDVDFYNYLKKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgcttgctg ccatggttct tggatctaag
61 cacgttacat gttgtacaga cagtgatagg tttacagac ttctaacga acttgcgcaa
121 gttcttaatg aggttgtgca ttctaatgga ggtttttatg taaaacctgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaat tctgtttta acattttca ggcagttagc
241 tctaacatta acaggcttct ttctgttgat agtaatgtgt gtaacaactt gtatgtcaaa
301 aagcttcagc gctctatcta tgacaattgt tataggtcta gtgctgttga tgacactgtt
361 gttacagact tctacaacta tcttaagaag catttttcta tgatgatte

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LOCUS MN312326 351 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7902 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312326

VERSION MN312326

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..351

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7902"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>351

/gene="RdRp"

CDS <1..>351

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87946"

/translation="AMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVVH

SNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRS

IYDNCYRSSAVDDTV"

ORIGIN

1 gctatgccta gtatgatacg tatgcttgc tctatgggtc ttgatctaa gcacgttaca
61 ttgtgtacag acagtgatag gttttacaga ctttcaacg aacttgcgca agttctta
121 gaagttgtgc attctaacgg aggtttttat gtaaacctg gtggcactac atcagtgat
181 gctacaactg cttatgcaaa ttctgtttt aacatcttcc aggcagttag ctctaact
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301 cgctctatct atgacaattg ttagtgtct agtgctgttg atgacactgt t

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LOCUS MN312327 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7904 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312327

VERSION MN312327

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7904"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87947"
/translation="RAMPSVIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDTVVTDYFNYLKKHFSMMI"

ORIGIN

1 agagctatgc ctagtgtgat acgtatgctt gctgcatgg ttcttgatc taagcacgtt
61 acatgttgta cagacagtga taggttttac agacttteta acgaactgc gcaagtctt
121 aatgaggttg tgcattctaa tggaggtttt tatgtaaac ctggtggcac tacatcaggt
181 gatgctaaa ctgcttatgc aaattctgtt ttaacattt ttcaggcagt tagctctaac
241 attaacaggc ttctttctgt tgatagtaat gtgtgtaaca acttgatgt caaaaagctt
301 cagcgtctta tctatgacaa ttgtatagg tctagtgtg ttgatgacac tgttggtaca
361 gactctaca actatctaa gaagcattt tctatgatga tt

//

LOCUS MN312328 400 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7913 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312328

VERSION MN312328

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7913"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>400

/gene="RdRp"

CDS <1..>400

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87948"

/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV

HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR

SIYDNCYRSSAVDDTVVTDYFNYLKKHFSMM"

ORIGIN

1 agagctatgc ctatgatgat acgtatgctt gctgctatgg ttcttgatc taagcacgtt
61 acatgttgta cagacagtga taggttttac agactttcta acgagcttgc gcaagtctt
121 aatgaagttg tcattctaa cggaggtttt tatgtaaac ctggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaattctgt ttaacatct ttcaggcagt tagctctaac
241 attaataggc ttcttctgt tgatagtaat gtgtgtaaca acttgatgt caaaaagctt
301 cagcgtccta tctatgacaa ttgttatagg tctagtgtg ttgatgacac tgtgttaca
361 gacttctaca actatcttaa gaagcattt tctatgatga

//

LOCUS MN312329 399 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7915 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312329

VERSION MN312329

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..399
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="7915"
 /host="Rhinolophus affinis"
 /db_xref="taxon:693998"
 /country="China"
gene <1..>399
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CDS <1..>399
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87949"
 /translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV
 HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
 SIYDNCYRSSAVDDTVVTDFFYNLKKHFSM"

ORIGIN

1 tagagctatg cctagatga tacgtatgct tgetgctatg gttcttggat ctaagcactg
61 tacatgttgt acagacagtg ataggttta cagacttct aacgaactg cgcaagtct
121 taatgaagt gtgcattcta acggaggtt ttatgtaaaa cctgggtgca ctacatcagg
181 tgatgctaca actgctatg caaattctgt ttttaacatt ttcaggcag ttatgcttaa
241 cattaacagg ctctttctg ttgatagtaa tgtgtgtaac aactgtatg tcaaaaagct
301 tcagcctct atctatgaca attgttatag gtctagtgt gttgatgaca ctgtgttac
361 agacttctac aactatctta agaagcattt ttctatgat

//

LOCUS MN312330 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 7916 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312330

VERSION MN312330

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

 /organism="Bat alphacoronavirus"

/mol_type="genomic RNA"
/isolate="7916"
/host="Rhinolophus sp."
/db_xref="taxon:2419667"
/country="China"
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/gene="RdRp"
CDS <1..>402
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/protein_id="QGA87950"
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YSNGGFYLPKGGTTSGDATTAHANSVFNIFQAVSANINRLLSIDSNACNNIGVKALQR
RLYDNCYRSSSVDESFIDYYGYLKKHFSMMI"

ORIGIN

1 agagcattac ctaacatgat ccgatgatt tctgcatga tcctagggtc taagcacacc
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121 acggaagttg tgtactctaa tggcggtttt tatctgaaac ctggtggtac aacatctggt
181 gatgcgacta cagcacacgc caactctgtt ttaacatct ttcaggctgt tagtgccaac
241 attaatagac ttttgagcat agatagtaac gcttgaata acattggcgt gaaggctcta
301 cagcgtaggt tgtacgacaa ctgctataga tcgtctagt tagatgagtc tttattgat
361 gattactatg gttatcttaa aaagcacttt tctatgatga tt

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LOCUS MN312331 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7917 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312331

VERSION MN312331

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7917"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
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/protein_id="QGA87951"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDTVVTDYFNYLKKHFSMM"

ORIGIN

1 atagagctat gcctagatg atacgtatgc ttgctgctat ggttcttggga tctaagcagc
61 ttacatgttg tacagacagt gataggtttt acagacttc taacgaactt gcgcaagttc
121 ttaatgaagt tgtgcattct aacggaggtt ttatgtaaa acctggtggc actacatcag
181 gtgatgctac aactgcttat gcaaattctg ttttaacat ctttcaggca gttagctcta
241 acattaatag gcttctttct gttgatagta atgtgtgtaa caactgtat gtcaaaaagc
301 ttcagcgcctc tatctatgac aattgttata ggtctagtgc tgttgatgac actgttgta
361 cagacttcta caactatctt aagaagcatt tttctatgat g

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LOCUS MN312332 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7918 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312332

VERSION MN312332

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7918"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87952"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDTVVTDYFNYLKKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgcttgctg ccatggttct tggatctaag
61 cacgttacat gttgtacaga cagtgatagg ttttacagac ttctaacga acttgcgcaa
121 gtcttaatg aggtgtgca tttaaatgga ggttttatg taaaacctgg tggcactaca
181 tcagtgatg ctacaactgc ttatgcaaat tctgtttta acattttca ggcagttagc
241 tctaacatta acaggcttct ttctgttgat agtaatgtgt gtaacaactt gtatgtcaa
301 aagcttcagc gctctatcta tgacaattgt tataggtcta gtgctgttga tgacactgtt
361 gttacagact tctacaacta tcttaagaag catttttcta tgatgatt

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LOCUS MN312333 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7919 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312333

VERSION MN312333

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

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/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87953"

/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV

VHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ

RSIYDNCYRSSAVDDTVVTDYFNYLKKHFSM"

ORIGIN

1 tgatagagct atgcctagta tgatacgtat gcttgctgct atggttcttg gatctaagca
61 cgttacatgt tgacagaca gtgatagggt ttacagactt tctaacgaac ttgcgcaagt
121 tcttaatgaa gttgtgcatt ctaacggagg tttttatgta aaacctgggtg gcactacatc
181 aggtgatgct acaactgctt atgcaaattc tgttttaac atctttcagg cagttagctc
241 taacattaat aggcttcttt ctgttgatag taatgtgtgt aacaactgt atgcaaaaa
301 gcttcagcgc tctatctatg acaattgta taggtctagt gctgttgatg acactgtgtg
361 tacagacttc tacaactatc ttaagaagca ttttctatg at

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LOCUS MN312334 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7920 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312334

VERSION MN312334

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Rhinolophus bat coronavirus HKU2"
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/country="China"

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CDS <1..>405

/gene="RdRp"

/codon_start=2

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/protein_id="QGA87954"

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ORIGIN

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121 tcttaatgaa gttgtgcatt ctaacggagg tttttatgta aaacctgggtg gcactacatc
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241 taacattaat aggtctctt ctgtgatag taatgtgtg aacaactgt atgtcaaaa
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361 tacagacttc tacaactatc ttaagaagca ttttctatg atgat

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LOCUS MN312335 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7923 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312335

VERSION MN312335

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"
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/db_xref="taxon:693998"
/country="China"

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/gene="RdRp"

CDS <1..>402

/gene="RdRp"

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/product="RNA-dependent RNA polymerase"

/protein_id="QGA87955"

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181 gatgctacaa ctgctatgc aaactctgtc ttaatatat tccaggcagt tagctctaac
241 attaatagac ttcttctgt tgatagtaat gtgtgtaaca atttatatg aaaaaagctt
301 cagcgtccta tctatgataa ttgttataga tctagtgtg ttgatgacaa tgtgttaca
361 gaattttata actatcttaa gaagcatttc tctatgatga tt

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LOCUS MN312336 411 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7926 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312336

VERSION MN312336

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7926"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

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/gene="RdRp"

CDS <1..>411

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/product="RNA-dependent RNA polymerase"

/protein_id="QGA87956"

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ORIGIN

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241 ttaacatta acaggcttct ttctgttgat agtaatgtgt gtaacaactt gtatgtcaaa
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LOCUS MN312337 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7927 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312337

VERSION MN312337

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7927"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

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/gene="RdRp"

CDS <1..>402

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/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87957"

/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVI

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ORIGIN

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61 acatgttgta cagacagtga taggtttac agactttcta atgaactgc acaagttctt
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241 attaatagac ttctttctgt tgatagtaac gtgtgtaaca atttatatgt aaaaaagctt
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LOCUS MN312338 411 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7928 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312338

VERSION MN312338

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 411)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..411
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7928"
/host="Rhinolophus affinis"
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/country="China"
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CDS <1..>411
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ORIGIN

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361 ttgttacaga ctctacaac tatcttaaga agcattttc tatgatgatt c
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LOCUS MN312339 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7931 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312339

VERSION MN312339

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7931"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

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/gene="RdRp"

CDS <1..>402

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/codon_start=1

/product="RNA-dependent RNA polymerase"

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ORIGIN

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301 cagcgtccta tctatgataa ttgttataga tctagtgtctg ttgatgacaa tgtgttaca
361 gaattttata actatcttaa gaagcatttc tctatgatga tt

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LOCUS MN312340 403 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7933 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312340

VERSION MN312340

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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 /country="China"
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CDS <1..>403
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ORIGIN

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LOCUS MN312341 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7935 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312341

VERSION MN312341

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406
 /organism="Rhinolophus bat coronavirus HKU2"
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ORIGIN

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241 ctaacattaa taggcttctt tctgttgata gtaatgtgtg taacaacttg tatgtcaaaa
301 agcttcagcg ctctatctat gacaattgtt ataggcttag tgctgttgat gacctgttg
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LOCUS MN312342 403 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 7936 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312342

VERSION MN312342

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="7936"

/host="Miniopterus sp."

/db_xref="taxon:2419667"

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CDS <1..>403
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ORIGIN

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301 cagcgtatgt tgtacgacaa ttgtatcgt acttctgctg ttgactctgg ctttgtegac
361 acctttatg gttatcttag gaagcactt tctatgatga ttc

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LOCUS MN312343 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7937 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312343

VERSION MN312343

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
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/host="Miniopterus sp."
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/country="China"

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CDS <1..>408
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ORIGIN

1 tgtgatagag cattgcctaa tatgattcgt atgatatccg ccatgatttt gggttccaag
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181 tcgggtgatg caacgacggc ttatgccaac tctgtgttta atattttca agcagtcagt
241 gctaacatta atcgcatact gggcggttaat agcaatactt gtaataactt aacagttaa
301 gattgcagc gctcgttcta tgacaattgt tatcgcaacta gcactgtaga ccctgcctt
361 gtagacagct ttatggcta cttacgcaaa catttctcta tcatgatt

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LOCUS MN312344 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7938 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312344

VERSION MN312344

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7938"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87964"

/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSGRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR

SIYDNCYRSSAVDDTVVTDYFNYLKKHFSMMI"

ORIGIN

1 agagctatgc ctagtatgat acgtatgctt gctgcatgg ttcttgatc taagcacgtt
61 acatgttga cagacagtg taggtttac agactttcta acgaactgc gcaagttctt
121 aatgaggttg tgcattctaa tggaggtttt tatgtaaac ctggtggcac tacatcaggt
181 gatgctaaa ctgcttatgc aaattctgt ttaacattt ttcaggcagt tagctctaac
241 attaacaggc ttctttctgt tgatagtaat gtgtgtaaca acttgatgt caaaaagctt
301 cagcgtctta tctatgaaa ttgtatagg tctagtgtg ttgatgacac tgtgttaca
361 gacttctaca actatctaa gaagcattt tctatgatga tt

//

LOCUS MN312345 418 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7939 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312345

VERSION MN312345

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..418

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7939"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>418

/gene="RdRp"

CDS <1..>418

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87965"

/translation="YPKCDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQV
LNEVVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYV
KKLQRSIYDNCYRSSAVDDTVVTDYFNYLKKHFSMM"

ORIGIN

1 attatcctaa atgtgataga gctatgccta gtatgatagc tatgcttgc gctatggttc
61 ttggatctaa gcacgttaca tgtgtacag acagtgatag gttttacaga ctttctaacg
121 aactgcgca agttcttaac gaagtgtgc attctaacgg aggttttat gtaaactctg

181 gtggcactac atcaggtgat gctacaactg cttatgcaaa ttctgtttt aacatctttc
241 aggcagttag cttaacatt aataggcttc tttctgttga tagtaatgtg tgtaacaact
301 tgatgtcaa aaagcttcag cgctctatct atgacaattg ttataggctc agtgcgtgtg
361 atgacactgt tgttacagac ttacaact atcttaagaa gcattttct atgatgat

//

LOCUS MN312346 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7941 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312346

VERSION MN312346

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7941"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87966"

/translation="RAMPSMIRMLAAMVLGSKHVTCTSDRFYRLSNKLAQVLNEVV

HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR

SIYDNCYRSSAVDDTVVTDYFNYLKKHFSMMI"

ORIGIN

1 agagctatgc ctagtatgat acgtatgctt gctgctatgg ttcttgatc taagcacgtt
61 acatgttgta cagacagtga taggttttac agactttcta acaagcttgc gcaagtctt
121 aatgaagttg tgcattctaa cggaggtttt tatgtaaac ctggtggcac tacatcaggt
181 gatgtacaa ctgcttatgc aaattctgtt ttaacatct ttcaggcagt tagctctaac
241 attaatagge ttctttctgt tgatagtaat gtgtgtaaca acttgatgt caaaaagctt
301 cagcgtctta tetatgacaa ttgttatagg tctagtctg ttgatgacac tgtgttaca
361 gactctaca actatcttaa gaagcatttt tctatgatga tt

//

LOCUS MN312347 419 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7942 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312347

VERSION MN312347

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 419)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 419)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..419

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7942"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>419

/gene="RdRp"

CDS <1..>419

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87967"

/translation="DYPKCDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQ

VLNEVVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLY

VKKLQRSIYDNCYRSSAVDDTVVTFYNYLKKHFSMM"

ORIGIN

1 gattatccta aatgtgatag agctatgcct agtatgatac gtatgcttgc tgctatggtt
61 cttggatcta agcaggttac atgtgtaca gacagtgata ggttttacag actttctaac
121 gaacttgcgc aagtctctaa tgaagtttg cattctaacg gaggtttta tgtaaacct
181 ggtggcacta catcaggtga tgctacaact gcttatcaa attctgttt taacatctt
241 caggcagta gctctaaca taataggctt cttctgttg atagtaatgt gtgtaacaac
301 ttgtatgca aaaagcttca gcgctctatc tatgacaatt gttataggtc tagtgctgtt
361 gatgacactg ttgttacaga cttctacaac tatcttaaga agcattttc tatgatgat

//

LOCUS MN312348 401 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7944 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312348

VERSION MN312348

KEYWORDS .**SOURCE** Rhinolophus bat coronavirus HKU2**ORGANISM** Rhinolophus bat coronavirus HKU2Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.**REFERENCE** 1 (bases 1 to 401)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China**JOURNAL** Unpublished**REFERENCE** 2 (bases 1 to 401)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission**JOURNAL** Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China**FEATURES** Location/Qualifiers

source 1..401

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7944"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>401

/gene="RdRp"

CDS <1..>401

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87968"

/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDTVVTDVFYNYLKKHFSMM"**ORIGIN**1 agagctatgc ctagtatgat acgtatgctt gctgctatgg ttcttgatc taagcacgtt
61 acatgttgta cacacagtga taggttttac agactttcta atgagcttgc gcaagttctt
121 aatgaagttg tgcattctaa cggaggtttt tatgtaaac ctggtggcac tacatcaggt
181 gatgetacaa ctgctatgc aaattctgtt ttaacatct ttcaggcagt tagctctaac
241 attaatagc ttcttctgt tgatagtaac gtgtgtaaca actgtatgt caaaaagctt
301 cagcgtccta tctatgacaa ttgtatagg tctagtgtg ttgatgacac tgttattaca
361 gactctaca actatcttaa gaagcatttt tctatgatga t

//

LOCUS MN312349 409 bp RNA linear VRL 07-NOV-2019**DEFINITION** Rhinolophus bat coronavirus HKU2 isolate 7946 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.**ACCESSION** MN312349**VERSION** MN312349**KEYWORDS** .**SOURCE** Rhinolophus bat coronavirus HKU2**ORGANISM** Rhinolophus bat coronavirus HKU2Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES

Location/Qualifiers

source 1..409
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7946"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>409
/gene="RdRp"
CDS <1..>409
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87969"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDTVVTDVFYNYLKKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgcttgctg ctatggttct tggatctaag
61 cacgttacat gttgtacaga cagtgatagg tttacagac ttctaacga gcttgcgcaa
121 gttctaatg aagttgtgca tctaacgga ggttttatg taaaacctgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaat tctgtttta acatctttca ggcagttagc
241 ttaacatta ataggettct tctgttgat agtaatgtgt gtaacaactt gtatgtcaaa
301 aagcttcagc gctctatcta tgacaattgt tataggtcta gtgctgttga tgacactgtt
361 gttacagact tctacaacta tettaagaag catttttcta tgatgattc

//

LOCUS MN312350 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7948 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312350

VERSION MN312350

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7948"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>409
/gene="RdRp"
CDS <1..>409
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87970"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VIHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTEFYNYLKKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctag tatgatccgc atgcttgctg ctatggttct tggatcaaag
61 catgttacat gttgtacaga cagtgatagg tttacagac tttctaatga acttgcacaa
121 gtcttaaat aggttataca ttccaatgga ggttttatg taaaacccgg tggcactaca
181 tcagtgatg ctacaactgc ttatgcaaac tctgtcttta atatttcca ggcagttagc
241 tctaacatta atagacttct ttctgttgat agtaatgtgt gtaacaattt atatgtaaaa
301 aagcttcagc gctctatcta tgataattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacagaat ttataacta tcttaagaag catttcteta tgatgattc

//

LOCUS MN312351 381 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7949 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312351

VERSION MN312351

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 381)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 381)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..381
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="7949"
 /host="Rhinolophus affinis"
 /db_xref="taxon:693998"
 /country="China"
gene <1..>381
 /gene="RdRp"
CDS <1..>381
 /gene="RdRp"
 /codon_start=3
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87971"
 /translation="MLAAMVLGSKHVTCCTDSDFYRLSNELAQVLNEVVHSNGGFYV
KPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSIYDNCYR
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ORIGIN

1 gtatgcttgc tgccatggtt ctggatcta agcacgttac atgtgtaca gacagtgata
61 ggtttacag actttctaac gaacttgcgc aagtcttaa tgagggtgtg cattctaag
121 gaggttttta tgtaaacct ggtggcacta catcaggtga tgctacaact gcttatgcaa
181 attctgtttt taacatttt caggcagtta gctctaacat taacaggctt cttctgttg
241 atagtaatgt gtgtaacaac ttgtatgtca aaaagcttca gcgctctatc tatgacaatt
301 gttataggtc tagtgetgtt gatgacactg ttgtacaga ctctacaac tatcttaaga
361 agcatttttc tatgatgatt c

//

LOCUS MN312352 403 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7953 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312352

VERSION MN312352

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403
 /organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"
/isolate="7953"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>403
/gene="RdRp"
CDS <1..>403
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87972"
/translation="RAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDTVVTDFFYNLKKHFSMMI"

ORIGIN

1 agagctatgc ctagtatgat acgcatgctt gctgctatgg ttcttggatc taagcacgtt
61 acatgttgta cagacagtga taggttctac agacttcta acgaactgc gcaagtctt
121 aatgaagttg tgcattctaa cggaggtttt tatgtaaac ctggtggcac tacatcaggt
181 gatgctacaa ctgcttatgc aaattctgtt ttaacattt ttcaggcagt tagctctaac
241 attaatagc ttcttctgt tgatagtaat gtgtgaaca acttgtagct caaaaagctt
301 cagcgctcta tctatgacaa ttgttatagg tctagtctg ttgatgacac tgttgttaca
361 gacttctaca actatcttaa gaagcattt tctatgatga ttc

//

LOCUS MN312353 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7955 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312353

VERSION MN312353

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="7955"
/host="Miniopterus sp."
/db_xref="taxon:2042696"

gene /country="China"
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/gene="RdRp"
CDS <1..>402
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA87973"
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YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQR
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ORIGIN

1 agagcattgc ctaatatgat tcgtatgata tccgcatga tttgggttc caagcatgag
61 aattgttga ccaactctga tcgtattat agactatgca atgagttagc tcaagtgtta
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181 gatgcaacga cgcttatgc caactctgtg ttcaacatct ttcaagcagt cagtgctaac
241 attaatcgca tattgggtgt taatagcaat acttgaata acttgacagt taaagattg
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361 acgtttatg gctacttacg caaacatttc tctatgatga tt

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LOCUS MN312354 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7956 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312354

VERSION MN312354

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7956"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

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CDS <1..>405
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QRSIYDNCYRSSAVDDTVVTDYFNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgcttgctg ctatggttct tggatctaag
61 cacgttacat gttgtacaga cagtgatagg ttttacagac ttttaacga acttgcgcaa
121 gttctaatg aagttgtgca tctaacgga ggttttatg taaacctgg tggcactaca
181 tcaggtgatg ctacaactgc ttatgcaaat tctgtttta acatctttca ggcagttagc
241 tetaacatta ataggettct tctgttgat agtaatgtgt gtaacaactt gtatgtcaaa
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361 gttacagact tctacaacta tettaagaag catttttcta tgatg

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LOCUS MN312355 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7959 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312355

VERSION MN312355

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7959"
/host="Rhinolophus affinis"
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/country="China"

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CDS <1..>405
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
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ORIGIN

1 tgatagagct atgctagta tgatacgtat gcttgcctgct atggttcttg gatctaagca
61 cgttacatgt tgacagaca gtgataggtt ttacagactt tctaacgaac ttgcgcaagt
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181 aggtgatgct acaactgctt atgcaaattc tgttttaac atcttcagg cagttagctc
241 taacattaat aggtctcttt ctgttgatag taatgtgtgt aacaacttgt atgtcaaaaa
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LOCUS MN312356 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7960-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312356

VERSION MN312356

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
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/db_xref="taxon:693998"
/country="China"

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CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87976"

/translation="RAMPSMIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
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ORIGIN

1 agagctatgc ctagtatgat acgtatgctt getgcatgg ttcttggatc taagcacgtt
61 acatgttgta cacagactga taggttttac agactttcta acgaactgc gcaagtctt
121 aatgaggttg tgcattctaa tggaggtttt tatgtaaac ctggtggcac tacatcaggt

181 gatgctacaa ctgcttatgc aaattctgtt ttaacattt ttcaggcagt tagctctaac
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301 cagcgtceta tctatgacaa ttgtatagg tctagtgtg ttgatgacac tttgttaca
361 gacttctaca actatcttaa gaagcattt tctatgatga tt

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LOCUS MN312357 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 7960-2 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312357

VERSION MN312357

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="7960-2"

/host="Rhinolophus affinis"

/db_xref="taxon:2419667"

/country="China"

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CDS <1..>402

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/codon_start=1

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/protein_id="QGA87977"

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ELYDNCYRSSGIDDSFIDKYYCYLRKHFSMMI"

ORIGIN

1 agagcattac ccaacatgat tcgtatgac tcagccatga ttttgggtc caaacatata

61 acctgttgta aactgatga gcgttattac agattgtgta atgaactgc tcaagttta

121 acagaggtg tctattcaa tggcgggtt tatctaaagc ctggtggtac tacttctgt

181 gatgcaaaa cagcatatgc aaactctgt ttaacatct tcaagctgt cagtgctaac

241 attaacaggt tactttctat cgatagtaac gtgtgtaata atgttagtgt caaagctctg

301 cagagagagt tgtatgacaa ctgttacagg tcgtcgggca tagatgatag ctttattgat

361 aagtattatt gtacttacg taacacttt tctatgatga tt

//
LOCUS MN312358 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7961 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.
ACCESSION MN312358
VERSION MN312358
KEYWORDS .
SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 409)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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/organism="Bat coronavirus 1"
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/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
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CDS <1..>409
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/protein_id="QGA87978"
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ORIGIN
1 tgtgatagag cattgcctaa tatgattcgt atgatatccg ccatgatttt gggttccaag
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181 tgggtgatg caacgacggc ttatgccaac tctgtgttta acattttca agcagtcagt
241 gctaacatta atcgatact gggcgtaat agcaatactt gtaataactt aacagttaa
301 gattgcagc gctcgttgta tgataattgt tategcacta gcactgtgga cctgccttt
361 gtagacacct tttatggta cttacgcaa catttcteta tgatgattc

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LOCUS MN312359 404 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7962 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312359

VERSION MN312359

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..404

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="7962"

/host="Rhinolophus affinis"

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CDS <1..>404

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/codon_start=1

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RSIYDNCYRSSAVDDTVVTDVFYNYLKKHFSMM"

ORIGIN

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121 ctaaatgaag ttgtcattc taacggagggt ttttatgtaa aacctggtgg cactacatca

181 ggtgatgcta caactgctta tgcaaattct gttttaaca tcttcaggc agttagctct

241 aacattaata ggcttcttct tgttgatagt aatgtgtgta acaactgta tgtcaaaaag

301 ctcagcgcct ctatctatga caattgttat aggtctagtg ctggtgatga cactgttgtt

361 acagacttct acaactatct taagaagcat tttctatga tgat

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LOCUS MN312360 409 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 7964 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312360

VERSION MN312360

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409
/organism="Bat coronavirus 1"
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/db_xref="taxon:2042696"
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/protein_id="QGA87980"
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ORIGIN

1 tgtgatagag cattgcctaa tatgattcgt atgatatccg ccatgatttt gggttctaag
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301 gattgcgac gctcgttga tgacaattgt tatcgacta gcactgtaga ccctgcctt
361 gtagacactt ttatgggta cttacgcaaa cattctcta tgatgattc

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LOCUS MN312361 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7965 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312361

VERSION MN312361

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus 1"
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/db_xref="taxon:2042696"
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YSNGGFYLKPGGTTSGDATTAYANSVFNIFLAVSANINRILGVNSNTCNNLTVKSLQR
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ORIGIN

1 agagcattgc ctaatgat cggtatgata tccgcatga ttttgggttc taagcatgaa
61 aattgttgta ctaactcaga ccgttattat agactatgca acgagttggc acaggtgcta
121 accgaggtgg tctattctaa tggcggtttt tatttaaac caggtggtac gacatcgggt
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241 attaatcgea ttttgggcgt taatagcaat acttgcaata acttgacagt taaaagttg
301 cagcgtcttt tgatgacaa ttgtatcgc actagcactg tggaccctgc cttttagac
361 acattttatg gtacttacg caaacatttc tctatgatga tt

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LOCUS MN312362 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 7966 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312362

VERSION MN312362

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407
/organism="Bat coronavirus 1"
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/isolate="7966"
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/db_xref="taxon:2042696"
/country="China"
gene <1..>407
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CDS <1..>407
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/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87982"
/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYSNGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKDLQ
RSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 gtgatagagc attgctaata atgattcgca tgatatccgc catgattttg ggtccaage
61 atgagaattg ttgtaccaac tctgatcggtt attatagact atgcaatgag ttagtccaag
121 tgctaactga agtagtctat tctaattggtg gtttttattt aaaaccaggt ggtacgacat
181 cgggtgatgc aacgacggct tatgccaact cctgttttaa tatcttcaa gcagttagt
241 ctaacattaa tcgcatactg ggcattaata gcaatactg taataactta acagttaaag
301 attgcagcg ctcgttgat gacaattggt atcgcaactag tactgtggac cctgccttg
361 tagacaggtt ttatggttat ttacgcaaac atttctctat gatgatt

//

LOCUS MN312363 369 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 141208 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312363

VERSION MN312363

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..369
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141208"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>369
/gene="RdRp"
CDS <1..>369
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87983"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSVDASFVDEYW"

ORIGIN

1 agagcattac ctaatatgat tagaatgatt tccgctatga tttgggttc taagcacgct
61 acgtgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtctta
121 acagaggta tctattctaa tgggtggttc taccttaaac ctggtggtac cactctggt
181 gatgctacta ctgcatacgc caattctgtc ttaacattt tcaggcagt tagtgctaat
241 gtcaacaggt tgcttggtgt ttagatgaac acatgcaaca atcttgaagt caagcaatta
301 cagcgtaaagc ttatgattg ctgctacaga tcatctagtg ttgatgctag tttgtggat
361 gagtattgg

//

LOCUS MN312364 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141217 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312364

VERSION MN312364

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141217"
/host="Myotis ricketti"
/db_xref="taxon:2042696"
/country="China"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87984"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttactataga ctatgcaacg agttggctca
121 agtgctaacc gaggtagtct attctaattgg cggttttat taaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgccaa ttcagtgtt aatatcttc aagcagtcag
241 tgtaacatt aatcgattt tgggcgtaa tagcaatact tgtaataact taacagtaa
301 aagtttgag cgctcttgt atgacaattg ttatcgcaact agtactgtgg accctgcctt
361 tgtagacaca

//

LOCUS MN312365 369 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141218 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312365

VERSION MN312365

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..369
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141218"

/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>369
/gene="RdRp"
CDS <1..>369
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87985"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttactataga ctatgcaacg agttggetca
121 agtgctaacc gaggtagtct attctaattg cggttttat ttaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgccaa ttcagtgttt aatatcttc aagcagtcag
241 tgctaacatt aatcgtattt tgggcgtaa tagcaatact tgtaataact taacagtaa
301 aagtttgacg cgctcttgt atgacaattg ttatgcact agtactgtgg accctgcctt
361 tgtagacac

//

LOCUS MN312366 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141219 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312366

VERSION MN312366

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..372
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141219"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>372

CDS /gene="RdRp"
<1..>372
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87986"
/translation="DRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEV
VYSNGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQ
RSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 tgatagagca ttgctaata tgatcgtat gatctgcc atgatttgg gttctaagca
61 tgagaattgt tgtactaact ctgaccgta ctatagacta tgcaacgagt tggctcaagt
121 gctaacagag gtagtctatt ctaatggeggt ttttattta aaaccaggtg gtacgacatc
181 ggggtgatgca acgacggctt atgccaattc agtgtttaat atctttcaag cagttagtgc
241 taacattaat cgcattttgg gcgtaaatag caatacttga aataactga cagtaaaag
301 ttgcagcgc tctttgatg acaattgta tcgcactagt actgtggacc ctgcctttgt
361 agacacattt at

//

LOCUS MN312367 374 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141224 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312367
VERSION MN312367
KEYWORDS .

SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 374)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..374
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141224"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>374
/gene="RdRp"
CDS <1..>374
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87987"
/translation="CDRALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTE
VIYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQL
QRKLYDCCYRSSSVDASFVDEY"

ORIGIN

1 tgtgatagag cattacctaa tatgattaga atgatttccg ctatgatctt gggttctaag
61 cacgtcacat gctgtactgc tagtgacagg ttttatagac tctgtaatga gttggcccaa
121 gtcttaacag aggttateta ttctaattgt ggtttctacc taaacctgg tggaccact
181 tctggtgatg ctactactgc atacccaat tctgtcttta acatttcca ggcagttagt
241 gctaattgca acaggttget tgggtgtgat agcaacacat gcaacaatct tgaagtaag
301 caattacagc gtaagcttta tgattgctgc tacagatcat ctagtgttga tgctagttt
361 gtggatgagt attg

//

LOCUS MN312368 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141227 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312368

VERSION MN312368

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141227"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>359
/gene="RdRp"

CDS <1..>359
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87988"
/translation="KCDRALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLT
EVIYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNKCNNLEVKQ

LQRKLYDCCYRSSNVDA"

ORIGIN

1 aaatgtgata gagcattgcc taatatgatt agaattgatt cgcctatgat tttgggttct
61 aagcatgtca cttgtgtac tgctagtac aggttctata gactctctaa cgagttggcc
121 caagttctaa cagaggttat ctattctaatt ggtgggtttt acctcaaacc tggaggtaca
181 acctctgggtg atgccactac tgcctacgcc aattctgtgt ttaatatttt tcaggctgtt
241 agtgcaatg ttaataggtt gcttgggtgt gatagcaaca aatgcaacaa cctagaagtt
301 aagcaattac agcgtaagct ttatgattgc tgctacaggt catctaattg tgatgccag

//

LOCUS MN312369 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate 141228 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312369

VERSION MN312369

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="141228"

/host="Myotis ricketti"

/db_xref="taxon:2664421"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87989"

/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRRLCNELAQVLTEMV

YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR

KLYDCCYRSSSVDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tctgcaatga tacttgggtc taagcatggt
61 aactgctgta gttctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttattcgaa cggtggcttt tatgtcaaac ctgggtgtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat

241 gttaacgct tgttgagtgt tgatagtaat acatgtaaca acatagaagt taagcaattg
301 cagcgttaagt tgatgattg ttgttatcga tcatcaagtg tggatcaaag tttgttgaa
361 gactactttg gttacctcg caaacacttt tctatgatga tt

//

LOCUS MN312370 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141230 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312370

VERSION MN312370

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141230"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>402
/gene="RdRp"

CDS <1..>402
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA87990"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTEVI
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTYNNLEVKQLQR
KLYDCCYRSSDVDASFVDEYFGYLRKHFSMMI"

ORIGIN

1 agagcgttac ctaacatgat tagaatgatt tccgctatga tcttgggttc taaacatgct
61 acttgcctga ctgctagtga caggtttat agactctcta acgagctagc ccaagtatta
121 acggaggta tttattctaa tgggtgggtt tacctcaaac ctggaggtag tacttctggt
181 gatgctacta ccgctatgc caactccgtg ttaacattt tcaggctgt tagtgctaat
241 gttaatagat tgctcgggtg tgatagtaac acgtacaaca acttagaagt caagcaatta
301 cagcgttaagc tttatgattg ctgctacagg tcatctgatg ttgatgctag tttgtgatg
361 gactatttcg gttatctacg taagcatttt tctatgatga tt

//

LOCUS MN312371 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141231 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312371
VERSION MN312371
KEYWORDS .

SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..402
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141231"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87991"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSVDASFVDEYFGYLRKHFSMMI"

ORIGIN
1 agagcattac ctaatgat tagaatgatt tccgctatga ttttgggttc taagcacgctc
61 acgtgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtetta
121 acagaggta tctattctaa tgggtggttc tacctaaac ctggtggtac cacttctggt
181 gatgctacta ctgcatacgc caattctgtc ttaacattt ttcaggcagt tagtgctaat
241 gtcaacaggt tgettgtgt tgatageaac acatgcaaca atcttgaagt caagcaatta
301 cagcgttaagc tttatgattg ctgctacaga tcatctagtg ttgatgctag ttttgggat
361 gagtatttg gctatctacg taagcatttt tctatgatga tt

//
LOCUS MN312372 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141233 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312372

VERSION MN312372

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..372

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141233"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>372

/gene="RdRp"

CDS <1..>372

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87992"

/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT
EVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKE
LQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aaatgtgata gagctttgcc taatatgatt cgtatgatat ccgcatgat tttgggttct
61 aagcatgaaa atgttgtac taactctgac cgttattata gattatgtaa cgagttggca
121 caagtctaa ctgaagtgt ctattctaac ggcggtttt atttaaacc aggtgttacg
181 acatcaggtg atgcaacgac agcttatgcc aattctgttt ttaatctt tcaagcagtt
241 agtgctaaca ttaatgcat tttgggcgtt aatagcaata ctgcaataa cttgacagtt
301 aaagagttgc aacgctcatt gtatgacaat tgtatcgca ctagtactgt tgaccctgcc
361 ttttagaca cg

//

LOCUS MN312373 375 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 141234 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312373

VERSION MN312373

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="141234"

/host="Miniopterus fuliginosus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>375

/gene="RdRp"

CDS <1..>375

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA87993"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL

QRSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 aatgtgatag agcattgcct aatgatgc gtatgatc tgccatgatt ttgggttcta
61 agcatgagaa ttgtgtact aactctgacc gttactatag actatgcaac gagttggctc
121 aagtgcctaac cgaggtatgc tattctaag gcggtttta ttaaaccac ggtggtacga
181 catcgggtga tgcaacgacg gcttatgcca actcagtgtt taatatctt caagcagtta
241 gtgctaacat taatgcatt ttgggcgtta atagcaatac ttgtaataac ttgacagtta
301 aaagttgca gcgctcttg tatgacaatt gttatgcac tagtactgtg gaccctgcct
361 ttgtagacac attta

//

LOCUS MN312374 347 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 141240 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312374

VERSION MN312374

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 347)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 347)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..347
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141240"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>347
/gene="RdRp"
CDS <1..>347
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87994"
/translation="CDRALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTE
VIYSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNKCNNLEVKQL
QRKLYDCCYRSSNV"

ORIGIN

1 tgtgatagag cattgcctaa tatgattaga atgattccg ctatgattt gggttctaag
61 catgtcactt gttgtactgc tagtgacagg ttctatagac tctctaacga gttgccc
121 gtctaacag aggtatceta ttctaattgt ggttttacc tcaaacctgg aggtacaacc
181 tctggtgatg ccactactgc ctacccaat tctgtgtta atattttca ggctgttagt
241 gccaatgta ataggtgct tgggttgat agcaacaaat gcaacaacct agaagttaag
301 caattacage gtaagcttta tgattgctgc tacaggtcat ctaatgt

//

LOCUS MN312375 375 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141252 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312375

VERSION MN312375

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141252"
/host="Myotis chinensis"
/db_xref="taxon:393045"
/country="China"
gene <1..>375
/gene="RdRp"
CDS <1..>375
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87995"
/translation="KCDRALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLT
EVIYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQ
LQRKLYDCCYRSSNVDASFVDEY"

ORIGIN

1 aaatgtgata gagcctacc taatatgatt agaatgatct ctgctatgat cttgggttct
61 aaacatgca catgctgtac tgctagtgat aggtttata gactatgtaa tgagttggcc
121 caagtttaa cagaagtcatt ctattctaatt ggtggtttct atcttaaacc cgggtgtact
181 acatcgggtg atgccactac cgcatatgcc aattctgtct ttaacatctt ccaggctgtt
241 agtgctaag tcaataggtt gcttggtgt gatagtaaca catgcaacaa tctcgaagtc
301 aagcaattac agcgtaaact ttatgattgc tgctacagat catctaattg tgatgctagt
361 tttgtagatg agtac

//

LOCUS MN312376 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 141253 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312376

VERSION MN312376

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..402
 /organism="Bat coronavirus HKU6"
 /mol_type="genomic RNA"
 /isolate="141253"
 /host="Myotis ricketti"
 /db_xref="taxon:393045"
 /country="China"
gene <1..>402
 /gene="RdRp"
CDS <1..>402
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA87996"
 /translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
 YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
 KLYDCCYRSSVSDASFVDEYFGYLRKHFSMMI"

ORIGIN

1 agagcattac ctaatgatg tagaatgatt tccgctatga tttgggttc taagcacgct
61 acatgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtctta
121 acagaggta tctattctaa tgggtgttc tacctaaac ctggtgttac cacttctggt
181 gatgctacta ctgcatacgc caattctgtc ttaacattt tccaggcagt tagtgctaat
241 gtcaacaggt tgcttggtgt ttagtagaac acctgcaaca atctgaagt caagcaatta
301 cagcgtaacg ttagtgattg ctgctacaga tcatctagtg ttgatgctag tttgtggat
361 gagtattttg gctatctacg taagcatttt tctatgatga tt

//

LOCUS MN312377 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141255 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.

ACCESSION MN312377

VERSION MN312377

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..371

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141255"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>371
/gene="RdRp"
CDS <1..>371
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87997"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aatgtgatag agcattgcct aatatgatcc gtatgatatc cgccatgatt ttgggttcta
61 agcatgagaa ttgtgtact aactctgacc gttattatag actatgcaac gagttggetc
121 aagtgctaac cgagggtgct tattctaata ggcggtttta tctaaaacca ggtggtacga
181 catcgggtga tgcaacgacg gcttatgcca atcagtggt taatatctt caagcagta
241 gtgctaacat taatcgatt ttgggcgta atagcaatac ttgcaataac ttgacagta
301 aaagttgca gcgctcttg tatgacaatt gttatgcac tagtactgtg gaccctgcct
361 ttgtagacac a

//

LOCUS MN312378 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 141256 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312378

VERSION MN312378

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="141256"
/host="Miniopterus fuliginosus"
/db_xref="taxon:694001"

gene /country="China"
<1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87998"
/translation="CDRALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSL
QRMLYDNCYRSSAVDPGFVDT"

ORIGIN

1 aatgtgatag agcattgcc aacatgattc gtatgattc tgctatgatt ttgggttcta
61 agcatgtaa ttgtgtacc aattcagatc gttattatag actctgtaat gagcttgcac
121 aagtcttac tgaagtgtc tattctaacg gtggttcta tatgaaacct ggtggtacta
181 catctgggta tgccactaca gcttatgcta attctgtttt caacatattc caggccgta
241 gtgctaata caacaggatt ttgggtatta atagtaatac ctgtaataat cttgctgta
301 agtctttaca gcgtatgctt tatgacaatt gttatagaag tccgctgtc gaccctgggt
361 ttgttgatac

//

LOCUS MN312379 358 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 141258 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312379

VERSION MN312379

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Miniopterus bat coronavirus HKU8"

/mol_type="genomic RNA"

/isolate="141258"

/host="Miniopterus pusillus"

/db_xref="taxon:694001"

/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA87999"
/translation="RALPNMIRMISAMILGSKHVCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSLQR
MLYDNCYRSSAVDPGFV"

ORIGIN

1 agagcattgc ccaacatgat tcgtatgatt tetgctatga ttttgggttc taagcatggt
61 aactgttgta ccaattcaga tcgttattat agactctgta atgagcttgc acaagttctt
121 actgaagttg tctattctaa tggcggcttc tatatgaaac ctggtggtac tacatctggt
181 gacgccacta cagcctatgc taattctgtc ttcaacatat tccaggctgt tagtgctaat
241 attaacagga ttttgggtat taatagtaat acctgtaata atcttgctgt taagtcttta
301 cagcgtatgc ttatgacaa ttggtataga agttccgctg tcgaccctgg ttttgggtg

//

LOCUS MN312380 364 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 141260 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312380

VERSION MN312380

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..364

/organism="Miniopterus bat coronavirus HKU8"

/mol_type="genomic RNA"

/isolate="141260"

/host="Miniopterus fuliginosus"

/db_xref="taxon:694001"

/country="China"

gene <1..>364

/gene="RdRp"

CDS <1..>364

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88000"

/translation="CDRALPNMIRMISAMILGSKHVCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSL
QRMLYDNCYRSSAVDPGFV"

ORIGIN

1 tgtgatag cattgcccc catgattcgt atgatttctg ctatgattt gggttctaag
61 catgttaact gttgtacaa ttcagatcgt tattatagac tctgtaatga gcttgcaaa
121 gttctactg aagttgtcta ttctaattggc ggcttctata tgaacctgg tggactaca
181 tctggtgacg cactacagc ctatgcta tctgtcttca acatattcca ggctgtagt
241 gctaataa acaggattt gggattaat agtaatacct gtaataatct tgctgtaag
301 tctttacagc gtatgctta tgacaattgt tatagaagt cgcgtgcga cctggtttt
361 gttg

//

LOCUS MN312381 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141261 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312381

VERSION MN312381

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141261"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>402
/gene="RdRp"

CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88001"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatatgat ccgatgata tccgcatga ttttgggttc taagcatgag
61 aattgttga ctaactctga ccgtattac agactatgca acgagttggc tcaagtgtta
121 actgagtag tctattctaa tggcggttt tatctaaac caggtggtac gacatcgggt

181 gatgcaacga cggcttatgc caattcagtg ttaatatct tcaagcagt cagtgctaac
241 attaatcgca tttgggcgct taatagcaat actgcaata acttaacagt taaaagtttg
301 cagcgtcttt tgatgacaa ttgtatcgc actagtactg tggaccctgc cttttagac
361 acattttatg gtattttacg caaacatttc tctatgatga tt

//

LOCUS MN312382 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate 141262-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312382

VERSION MN312382

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Miniopterus bat coronavirus HKU8"

/mol_type="genomic RNA"

/isolate="141262-1"

/host="Miniopterus fuliginosus"

/db_xref="taxon:694001"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88002"

/translation="RALPNMIRMISAMILGSKHVNCCNSDRYYRLCNELAQVLTEVV

YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSLQR

MLYDNCYRSSAVDPGFVDTFYGYLRKHFSSMMI"

ORIGIN

1 agagcattgc ccaacatgat tcgtatgatt tetgctatga ttttgggttc taagcatggt
61 aattgttgta ccaattcaga tcgtattat agactctgta atgagcttgc acaagttctt
121 actgaagttg tctattctaa cgggtggttc tacatgaaac ctggtggtac tacatctggt
181 gatgccacta cagcttatgc taattctgtt tcaacatat tccaggccgt tagtgctaat
241 atcaacagga ttttgggtat taatagtaat acctgtaata atcttgctgt taagtcttta
301 cagcgtatgc tttatgacaa ttgtataga agttccgctg tcgaccctgg ttttggat
361 actttttacg gctacttgcg gaagcatttc tctatgatga tt

//

LOCUS MN312383 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 141262-2 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312383

VERSION MN312383

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Alphacoronavirus; unclassified Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141262-2"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88003"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatgat tcgatgata tccgcatga tttgggttc taagcatgag
61 aattgttga ctaactctga ccgtactat agactatgca acgagttggc tcaagtgcta
121 actgaggtgg tctattctaa tggcggtttt tatctaaaac caggtggtac gacatcgggt
181 gatgcaacga cgcttatgc caattcagt ttaatatct tcaagcagt cagtgctaac
241 attaatgca tttgggcgt taatagcaat acttgcaata acttgacagt taaaagttg
301 cagcgtctt tgatgacaa ttgtatcgc actagtactg tggaccctgc cttttagac
361 acatttatg gtacttacg caaacattc tctatgatga tt

//

LOCUS MN312384 369 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 141267 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312384

VERSION MN312384

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..369

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="141267"

/host="Miniopterus fuliginosus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>369

/gene="RdRp"

CDS <1..>369

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88004"

/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT

EVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS

LQRSLYDNCYRTSTVDPAFVD"

ORIGIN

1 aaatgtgata gagcactgcc taatatgata cgtatgatat ccgcatgat tttgggttct
61 aagcatgaaa attgtgtac caactctgac cgttattaca gactatgcaa cgagttgget
121 caagtgctaa ctgaggtggt ctattctaatt ggcgggtttt atttaaaacc aggtggtacg
181 acatcgggtg atgcaacgac ggcttatgcc aatcagtggt ttaatattt tcaagcagtc
241 agtgetaaca ttaatgcat tttgggcgtt aatagcaata cttgcaataa cttaacagtt
301 aaaagtttgc agcgttcttt gtatgacaat tgttatcgca ctagtactgt ggacctgccc
361 tttgtagac

//

LOCUS MN312385 358 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 141278 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312385

VERSION MN312385

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141278"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>358
/gene="RdRp"
CDS <1..>358
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88005"
/translation="AMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYSNNGGFYLPKPG
GTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQRSLYDNCYRTST
VDPAFVDTFYGYLRKHF"

ORIGIN

1 gccatgatt tgggttctaa gcatgagaat tgttgacta actctgaccg ttattataga
61 ctatgcaacg agttagctca agtgctaact gagtagtct attctaattg cggttttat
121 ttaaaccag gtgtgacgac atcgggtgat gcaacgacgg cttatgcaa ttagtggtt
181 aatattttc aagcagtcag tgctaacatt aatcgattt tgggcgtaa tagcaatac
241 tgcaataact tgacagtaa aagtttcgag cgctcttgt atgacaattg ttatcgact
301 agtactgtgg accctgcctt ttagacaca tttatggtt atttacgcaa acatttct

//

LOCUS MN312386 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141281 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312386
VERSION MN312386
KEYWORDS .
SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..360
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141281"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88006"
/translation="LGSKHENCCTNSDRYYRLCNELAQVLTEVVYSNGGFYLPKGGTT
SGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQRSLYDNCYRTSTVDP
AFVDTFYGYLRKHFSMM"

ORIGIN

1 ttgggttct aagcatgaga attgtgtac taactctgac cgttattata gactatgtaa
61 cgagttggct caagtgctaa ctgaagtagt ctattctaat ggtggtttt acctaaaacc
121 aggtggtacg acatcgggtg atgcaacgac ggcttatgcc aattcagtgt ttaatatctt
181 tcaagcagtc agtgctaaca ttaatcgcatt ttggggcgtt aatagcaata ctgcaataa
241 ctgacagtt aaaagtttgc agcgcctttt gtagacaat tggtatcgca ctagtactgt
301 agacctgcc ttgtagaca cattttatgg ttacttacgc aacatttct ctatgatgat

//

LOCUS MN312387 362 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141282 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312387

VERSION MN312387

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..362

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="141282"

/host="Miniopterus fuliginosus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>362

/gene="RdRp"

CDS <1..>362

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88007"

/translation="ILGSKHENCCTNSDRYYRLCNELAQVLTEVVYSNGGFYLPGGT

TSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQRSLYDNCYRTSTVD

PAFVDTFYGYLRKHFSMM"

ORIGIN

1 gattttgggt tctaagcagc agaattgttg tactaactct gaccgttact atagactatg
61 caacgagttg gctcaagtc taaccgaggt agtctattct aatggcgggt ttatttaaa
121 accagtggtg acgacatcgg gtgatgcaac gacggcttat gccaatcag tgtttaatat
181 tttcaagca gtcagtgcta acattaatcg catcttgggc gtaatagca atactgcaa
241 taactgaca gtaaaagtt tgcagegctc tttgatgac aattgttacc gcactagtag
301 tgtggaccct gcctttgtag acacattta tggttactta cgcaaacatt tctctatgat
361 ga

//

LOCUS MN312388 367 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate 141286 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312388

VERSION MN312388

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..367
 /organism="Miniopterus bat coronavirus HKU8"
 /mol_type="genomic RNA"
 /isolate="141286"
 /host="Miniopterus pusillus"
 /db_xref="taxon:694001"
 /country="China"
gene <1..>367
 /gene="RdRp"
CDS <1..>367
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88008"
 /translation="AMILGSKHVNCCTNSDRYYRLCNELAQVLTEVVYSNGGFYMKPG
 GTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSLQRMLYDNCYRSSA
 VDPGFVDTFYGYLRKHFSMM"

ORIGIN

1 gctatgattt tgggttctaa gcatgtaac tgtgtacca attcagatcg ttattataga
61 ctctgtaatg agcttgcaaca agttcttact gaagttgtct attctaattgg cggettctat
121 atgaaacctg gtggtactac atctggtgac gccactacag cctatgctaa ttctgtcttc
181 aacatatcc aggctgtag tgctaataatt aacaggattt tgggtattaa tagtaatacc
241 tgtaataate ttctgttaa gtctttacag cgtatgcttt atgacaattg ttatagaagt
301 tccgctgtcg accctggttt tgttgatacc ttttacggct acttgcggaa gcatttctct
361 atgatga

//

LOCUS MN312389 365 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141288 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312389

VERSION MN312389

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..365
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"

/isolate="141288"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>365
/gene="RdRp"
CDS <1..>365
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88009"
/translation="MILGSKHENCCTNSDRYYRLCNELAQVLTEVVYSNGGFYLPKGG
TTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSLQRSLYDNCYRTSTV
DPAFVDTFYGYLRKHFSMM"

ORIGIN

1 atgattttgg gttctaagca tgagaattgt tgtactaact ctgaccgta ttatagacta
61 tgtaacgagt tggctcaagt gtaactgaa gtagtctatt ctaatggtgg ttttaccta
121 aaaccaggtg gtacgacatc gggatgatgca acgacggctt atgccaattc agtgtttaat
181 atctttcaag cagtcagcgc taacattaat cgcattttgg gcgtaataag caataactgc
241 aataacttga cagtaaaaag tttgcagcgc tctttgatg acaattgta tcgcactagt
301 actgtagacc ctgcctttgt agacacattt tatggttact tacgcaaaca ttctctatg
361 atgat

//

LOCUS MN312390 373 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141289 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312390

VERSION MN312390

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141289"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>373
/gene="RdRp"
CDS <1..>373
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88010"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgatt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttactataga ctatgtaacg agttggetca
121 agtgctaacc gaggtagtct attctaattg cggttttat ttaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgceaa ttcagtgttt aatatcttc aagcagtcag
241 tgtaacatt aatcgattt tgggcgtaa tagcaatact tgcaataact taacagtaa
301 aagtttgag cgctcttgt atgataattg ttatcgact agtactgtgg accctgcct
361 tgtagacaca ttt

//

LOCUS MN312391 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141290 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312391

VERSION MN312391

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141290"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>370
/gene="RdRp"

CDS <1..>370
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88011"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 tgtgatagag cattgcctaa tatgattcgt atgatatccg ccatgatttt gggttctaag
61 catgagaatt gttgactaa ctctgaccgt tattatagac tatgtaacga gttggctcaa
121 gtgctaactg aggtagtcta ttctaattggc ggtttttact taaaaccagg tggtagcagc
181 tcgggtgatg caacgacggc ttatgccaat tcagtgttta acatctttca agcagtcagt
241 gctaacatta atcgcatttt gggcgtaat agcaatactt gcaataactt aacagttaa
301 agtttgacg gcctctttgta tgacaattgt tatcgcaacta gtactgtgga ccctgcctt
361 gtacacacat

//

LOCUS MN312392 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141293 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312392

VERSION MN312392

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..372

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141293"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>372

/gene="RdRp"

CDS <1..>372

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88012"

/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT

EVVYSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS
LQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aaatgtgata gagcattgcc taatatgatt cgtatgatat cgcctatgat tttgggttct
61 aagcatgaga atgtgtgtac taactctgac cgttattata gactatgcaa cgagttggct
121 caagtgctaa ctgaggtagt ctattctaataat ggcgggtttt acctaaaacc aggtggtacg
181 acatcgggtg atgcaacgac ggcttatgcc aatcagtggt ttaatatatt tcaagcagtt
241 agtgcataca ttaatcgcatt tttgggcgtt aatagcaaca cttgtaataa cttgacagtt
301 aaaagtttgc agcgtctttt gtatgacaat tgttatcgca ctagtactgt ggaccctgcc
361 tttgtagaca ca

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LOCUS MN312393 376 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141295 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312393

VERSION MN312393

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="141295"

/host="Myotis ricketti"

/db_xref="taxon:393045"

/country="China"

gene <1..>376

/gene="RdRp"

CDS <1..>376

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88013"

/translation="CDRALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTE

VIYSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQL

QRKLYDCCYRSSSVDFVDEYW"

ORIGIN

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61 cacgtcacat gctgtactgc tagtgacagg tttatagac tctgtaatga gttggcccaa
121 gtcttaacag aggttatcta ttctaatggt ggtttctacc taaacctgg tggtagcact
181 tctggatgat ctactactgc atacccaat tctgtcttta acattttcca ggcagttagt
241 gctaattgca acaggttget tgggtgtgat agcaacacat gcaacaatct tgaagtcaag
301 caattacagc gtaagcttta tgattgctgc tacagatcat ctagtgttga tgctagtttt
361 gtggatgagt attggc

//

LOCUS MN312394 363 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141298 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312394

VERSION MN312394

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..363

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141298"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>363

/gene="RdRp"

CDS <1..>363

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88014"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL

QRSLYDNCYRTSTVDPAFV"

ORIGIN

1 tgtgatagag cattgcctaa tatgatccgt atgatatccg ccatgatttt gggttctaag
61 catgagaatt gttgactaa ctctgaccgt tactatagac tatgtaacga gttggetcaa
121 gtgetaacg aggtagtcta ttctaatggt ggttttatt taaaaccagg tggtagcaca
181 tctggatgat caacgacggc ttatgccaat ctagtgttta atatcttca agcagtcagt
241 gctaacatta atcgcatttt gggcgtaat agcaatactt gcaataactt aacagtaaa

301 agtttcgacg gctctttgta tgataattgt tatcgcacta gtactgtgga ccctgccttt
361 gta

//

LOCUS MN312395 353 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141304 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312395

VERSION MN312395

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 353)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 353)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..353

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141304"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>353

/gene="RdRp"

CDS <1..>353

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88015"

/translation="CDRALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTE
VIYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQL
QRKLYDCCYRSSSVSD"

ORIGIN

1 aatgtgatag agcattacct aatatgatta gaatgattc cgctatgac ttgggttcta
61 agcacgtcac atgctgtact gctagtgaca ggtttatag actctgtaat gagttggctc
121 aagtcttgac agaggttacc tattctaata gtggtttcta ccttaaacct ggtggtacta
181 ctctggtga tgctactact gcatacgcca attctgtctt taacatttt caggcagtta
241 gtgctaagt caacaggttg cttggtgtg atagcaaac atgcaacaat cttgaagtca
301 agcaattaca gcgtaagctt tatgattgct gctacagatc atctagtgtt gat

//

LOCUS MN312396 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 141310 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.
ACCESSION MN312396
VERSION MN312396
KEYWORDS .
SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 374)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 374)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..374
/organism="Bat coronavirus HKU6"
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/isolate="141310"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>374
/gene="RdRp"
CDS <1..>374
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88016"
/translation="DRALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEV
IYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQ
RKLYDCCYRSSVDASFVDEYM"

ORIGIN

1 tgatagca ttacctaata tgattagaat gattccgct atgatcttg gttctaagca
61 cgtcacatgc tgtactgcta gtgacagggt ttatagactc tgtaatgagt tggccaagt
121 ctaacagag gttatctatt ctaatggtgg ttctacctt aacctggtg gtaccactc
181 tggatgatgct actactgcat acgccaatc tgtcttaac atttccagg cagttagtgc
241 taatgtcaac aggttgcttg gtgtgatag caacacatgc aacaatctg aagtaagca
301 attacagcgt aagcttatg attgctgcta cagatcatct agtgttgatg ctagtttgt
361 ggatgagtat atgc

//

LOCUS MN312397 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141312 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312397
VERSION MN312397
KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..371

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141312"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>371

/gene="RdRp"

CDS <1..>371

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88017"
/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT
EVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS
LQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aaatgtgata gagcattgcc taatatgatc cgtatgatat ccgcatgat tttgggttct
61 aagcatgaga attgtgtac taattctgac cgttactata gactatgcaa cgagttggct
121 caagtgctaa ccgaggtagt ctattctaatt ggtggttttt atttaaaacc aggtggtacg
181 acatcgggtg atgcaacgac ggcttatgcc aatcagtggt ttaatatctt tcaagcagtc
241 agtgctaaca ttaatcgcatt ttggggcgtt aatagcaata ctgcaataa cttaacagtt
301 aaaagttgc agcgtcttt gtatgacaat tgttatcgca ctagtactgt ggaccctgcc
361 tttgtagaca c

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LOCUS MN312398 362 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate 141314 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312398

VERSION MN312398

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..362
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/mol_type="genomic RNA"
/isolate="141314"
/host="Miniopterus fuliginosus"
/db_xref="taxon:694001"
/country="China"
gene <1..>362
/gene="RdRp"
CDS <1..>362
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88018"
/translation="RALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSLQR
MLYDNCYRSSAVDPGFVDT"

ORIGIN

1 agagcattgc ccaacatgat tcgtatgatt tctgctatga ttttgggttc taagcatggt
61 aactgttgta ccaattcaga tcgttattat agactctgta atgagcttgc acaagttctt
121 actgaagttg tctattctaa tggcgggttc tatatgaaac ctggcgggtac tacatctggt
181 gacgccacta cggectatgc taattctgtc ttcaacatat tccaggctgt tagtgctaat
241 attaacagga ttttgggtat taatagtaat acctgtaata atcttgctgt taagtcctta
301 cagcgtatgc ttatgacaa ttgtataga agttctgctg ttgacctgg tttgtcgat
361 ac

//

LOCUS MN312399 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141315 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312399

VERSION MN312399

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 371)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..371
/organism="Bat coronavirus 1"
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/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>371
/gene="RdRp"
CDS <1..>371
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88019"
/translation="DRALPNMIRMISAMILGFKHENCCTNSDRYYRLCNELAQVLTEV
VYNSGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKELQ
RSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 gtgatagagc ttgcctaata atgattcgta tgatatccgc catgatttg ggttttaagc
61 atgaaaattg ttgtactaac tctgaccgtt attatagatt atgtaacgag ttggcacaag
121 tgctaactga atggtgtctat tctaaccggcg gtttttattt aaaaccagggt ggtacgacat
181 caggtgatgc aacgacagct tatgccaatt ctgtttttaa tatctttcaa gcagtcagtg
241 ctaacattaa tcgcattttg ggcgtaaca gcaataactg caataactg acagttaaag
301 agttgcaacg ctcattgtat gacaattgtt atcgactag tactgttgac cctgcctttg
361 tagacacggt t

//

LOCUS MN312400 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141317 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312400

VERSION MN312400

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..372
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141317"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>372
/gene="RdRp"
CDS <1..>372
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88020"
/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT
EVVYSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS
LQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aaatgtgata gagcattgcc taatatgata cgtatgat cgcctatgat ttgggttct
61 aagcatgaga attgtgttac taactctgac cgttattata gactatgtaa cgagttggc
121 caagtgctaa ctgaggtggc ctattctaat ggcggtttt acctaaaacc aggtggtacg
181 acatcgggtg atgcaacgac ggcttatgcc aatcagtgt ttaatctt tcaagcagtc
241 agtgetaaca ttaatcgc atttgggcgtt aatagcaata cttgcaataa cttgacagtt
301 aaaagttgc agcgccttt gtatgacaat tgttatcgca ctagtactgt ggaccctgcc
361 ttttagaca ca

//

LOCUS MN312401 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141318 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312401

VERSION MN312401

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..371
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="141318"
 /host="Miniopterus pusillus"
 /db_xref="taxon:2042696"
 /country="China"
 gene <1..>371
 /gene="RdRp"
 CDS <1..>371
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88021"
 /translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT
 EVVYSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS
 LQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aaatgtgata gagcattgcc taatatgata cgtatgatat ccgcaatgat tttgggttct
 61 aagcacgaga attgtgttac taactctgac cgttactata gactatgcaa cgagtggct
 121 caagtgctaa ccgaggtagt ctattctaatt ggtggttttt atttaaaacc aggtggtacg
 181 acatggggtg atgcaacgac ggcttatgcc aattcagtgt ttaatatttt tcaagcagtc
 241 agtgcataca ttaatcgcatt tttgggcgtt aatagcaata cttgcaataa cttgacagtt
 301 aaaagttgc agcgcctttt gtagacaat tggtatcgca ctagtactgt ggaccctgcc
 361 tttgtagaca c

//

LOCUS MN312402 379 bp RNA linear VRL 07-NOV-2019
 DEFINITION Miniopterus bat coronavirus HKU8 isolate 141319 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312402

VERSION MN312402

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..379
 /organism="Miniopterus bat coronavirus HKU8"
 /mol_type="genomic RNA"
 /isolate="141319"

/host="Miniopterus fuliginosus"
/db_xref="taxon:694001"
/country="China"
gene <1..>379
/gene="RdRp"
CDS <1..>379
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88022"
/translation="KCDRALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLT
EVVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKS
LQRMLYDNCYRSSAVDPGFVDTFT"

ORIGIN

1 aaatgtgata gagcattgcc caacatgatt cgtatgatt ctgctatgat tttgggtct
61 aagcatgita actgtgttac caattcagat cgttattata gactctgtaa tgagcttgca
121 caagttctta ctgaagttgt ctattctaat ggcggcttct atatgaaacc tgggtgtact
181 acatctggtg acgccactac agcctatgct aattctgtct tcaacatatt ccaggctgtt
241 agtgctaata ttaacaggat tttgggtatt aatagtaata cctgtaataa tcttgcgtt
301 aagtcctac agcgtatgct ttatgacaat tgttatagaa gttctgctgt tgaccctggt
361 tttgttgata cttttacgc

//

LOCUS MN312403 368 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141320 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312403

VERSION MN312403

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141320"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>368

CDS /gene="RdRp"
<1..>368
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88023"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 tgtgatagag cattgcctaa tatgatccgt atgatatccg ccatgatttt gggttctaag
61 catgagaatt gttgactaa ctctgaccgt tattatagac tatgcaacga gttggctcaa
121 gtgctaactg aggtggctta ttctaattga ggtttttacc taaaaccagg tggtagcaca
181 tcgggtgatg caacgacggc ttatccaat tcagtgtta atatcttca agcagtcagt
241 gctaacatta atcgcatttt gggegttaat agcaatactt gcaataactt gacagttaa
301 agtttgcagc gctctttgta tgacaattgt tatcgcaacta gtactgtgga ccctgccttt
361 gtagacac

//

LOCUS MN312404 368 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141321 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312404
VERSION MN312404
KEYWORDS .

SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 368)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 368)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..368
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141321"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>368
/gene="RdRp"
CDS <1..>368
/gene="RdRp"
/codon_start=2

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88024"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVD"

ORIGIN

1 atgtgataga gctttgcta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 acatgaaaaa tgttgacta actctgaccg ttattataga ctatgtaatg agttggctca
121 agtgctaact gaagtggctc attctaacgg cggttttat taaaaccag gtggtacgac
181 atcaggtgat gcaacgacag cttatgcca ttctgtttt aacatcttc aagcagttag
241 tgctaacatt aatcgtattt tgggcgttaa tagcaatact tgcaataact tgacagttaa
301 agagttgcaa cgctcattgt atgataattg ttatcgcact agtactgttg accctgcctt
361 tntagaca

//

LOCUS MN312405 369 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 141355 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312405

VERSION MN312405

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..369

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="141355"
/host="Rhinolophus sinicus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>369

/gene="RdRp"

CDS <1..>369

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88025"

/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT
E VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS

LQRSLYDNCYRTSTVDPAFVD"

ORIGIN

1 aatgtgata gagcactgcc taatatgac cgtatgatat ccgcatgat tttgggttct
61 aagcatgaaa attgtgtac caactctgac cgttattaca gactatgcaa cgagtggct
121 caagtgctaa ctgaggtggt ctattctaatt ggcggttttt atttaaaacc aggtggtacg
181 acatcgggtg atgcaacgac ggcttatgcc aatcagtggt ttaatatttt tcaagcagtc
241 agtgcataca ttaatgcat tttgggcgtt aatagcaata ctgcaataa cttaacagtt
301 aaaagtttgc agcgttcttt gtatgacaat tgttatcgca ctagtactgt ggacctgccc
361 ttttagac

//

LOCUS MN312406 378 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate 141391 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312406

VERSION MN312406

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 378)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 378)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..378

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="141391"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="China"

gene <1..>378

/gene="RdRp"

CDS <1..>378

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88026"

/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE

VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL

QRELYDNCYRSSSVDEQFIDKYY"

ORIGIN

1 aatgtgatag agcattgcct aacatgatac gcatgatctc tgctatgata cttggttcca
61 aacacacaac atgtgtact actgatgaaa gatattatcg tttgtgcaat gagttggccc
121 aagtgttaac agagttgtg tattctaatt gttggtttta ttttaacct ggtgttacta

181 cctcaggtga tgcttctaca gcctatgcta actcagttt taacatttc caggcagtca
241 gtctaacat taacagattg ttgactatcg acagcaatgt ttgtaataat gttagtgtca
301 aaactctgca aagagagttg tatgacaact gctacaggtc atcaagtgtc gacgaacaat
361 tcatagataa atattatg

//

LOCUS MN312407 379 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU10 isolate 141392 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312407

VERSION MN312407

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..379

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="141392"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="China"

gene <1..>379

/gene="RdRp"

CDS <1..>379

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88027"

/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE

VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL

QRELYDNCYRSSSVDEQFIDKYYA"

ORIGIN

1 aatgtgatag agcattgcct aacatgatac gcatgatctc tgctatgata cttggtcca
61 aaacacacaac atgttgact actgatgaaa gatattatcg tttgtgcaat gagttgccc
121 aagtgttaac agaggttggt tattctaata gttggtttta ttttaaacct ggtggtacta
181 cctcaggtga tgcttctaca gcctatgcta actcagttt taacatttc caggcagtca
241 gtctaacat taacagattg ttgactatcg acagcaatgt ttgtaataat gttagtgtca
301 aaactctgca aagagagttg tatgacaact gctacaggtc atcaagtgtc gacgaacaat
361 tcatagataa atattatg

//

LOCUS MN312408 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU10 isolate 141402 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312408
VERSION MN312408
KEYWORDS .

SOURCE Bat coronavirus HKU10
ORGANISM Bat coronavirus HKU10
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.
REFERENCE 1 (bases 1 to 371)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 371)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..371
/organism="Bat coronavirus HKU10"
/mol_type="genomic RNA"
/isolate="141402"
/host="Hipposideros pomona"
/db_xref="taxon:1244203"
/country="China"
gene <1..>371
/gene="RdRp"
CDS <1..>371
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88028"
/translation="DYPKCDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQ
VLTEVVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVS
VKTLQRELYDNCYRSSSVDEQ"

ORIGIN

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1 tgattatccc aatgtgata gagcattgcc taacatgata cgcatgatct ctgctatgat
61 acttggttcc aaacacacaa catgtgttac tactgatgaa agatattatc gtttgtgcaa
121 tgagttggcc caagtgttaa cagaggttgt gtattctaat ggtggttttt attttaaacc
181 tgggtgtact acctcagtg atgcttctac agcctatgct aactcagtct ttaacatftt
241 ccaggcagtc agttctaaca ttaacagatt gttgactatc gacagcaatg tttgtaataa
301 tgtagtagtc aaaactctgc aaagagagtt gtatgacaac tgctacaggt catcaagtg
361 cgacgaacaa t
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//

LOCUS MN312409 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 141404 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312409
VERSION MN312409

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="141404"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88029"

/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI

YSNGGFYLPKGGTTS GDATTAYANSVFNIFQAVSANVNRL LGVDSNTCNNLEVKQLQR
KLYDCCYRSSSV DASFVDEYFGYLRKHFSMMI"

ORIGIN

1 agagcattac ctaatatgat tagaatgatt tccgctatga tcttgggttc taagcacgctc
61 acatgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtctta
121 acagagggta tctattctaa tgggtggttc tacctaaac ctggtggtac cacttctggt
181 gatgctacta ctgcatagc caattctgct ttaacatct ttcaggcagt tagtgctaat
241 gtaacaggt tgcttggtgt ttagtagaac acatgcaaca atctgaagt caagcaatta
301 cagcgtaac ttatgattg ctgctacaga tcatctagtg ttgatgctag tttgtggat
361 gagtatttg gctatctagc taagcatttt tctatgatga tt

//

LOCUS MN312410 353 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 141447 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312410

VERSION MN312410

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 353)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 353)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..353

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="141447"

/host="Myotis ricketti"

/db_xref="taxon:393045"

/country="China"

gene <1..>353

/gene="RdRp"

CDS <1..>353

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88030"

/translation="CDRALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTE

VIYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSENTCNNLEVKQL

QRKLYDCCYRSSNVD"

ORIGIN

1 atgtgataga gcattgccta atatgattag aatgattcc gctatgattt tgggttctaa

61 gcatgtcact tgtgtactg ctatgacag gttctataga ctctctaacg agttggccca

121 agttctaaca gaggttatct attctaattg tggtttttac ctcaaactg ggggtacaac

181 ctctggtgat gccactactg cctacgcaa ttctgtgtt aacattttc aggctgttag

241 tgccaatgtc aataggttgc ttgtgttga tagcaacaca tgcaacaacc tagaagtcaa

301 gcaattacag cgcaagcttt atgattgctg ctacaggtca tctaattgtg atg

//

LOCUS MN312411 367 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 141453 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312411

VERSION MN312411

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 367)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..367
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="141453"
/host="Rhinolophus macrotis"
/db_xref="taxon:693998"
/country="China"
gene <1..>367
/gene="RdRp"
CDS <1..>367
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88031"
/translation="CDRAMPSMVRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVT"

ORIGIN

1 tgtgatagag ctatgcctag tatggtacgt atgcttgctg ctatggttct tggatcgaag
61 catgttcatat gttgtacaga tagtgacagg ttttatagac ttctaatga acttgcgcaa
121 gtcttaaatg aggtgtgca ttctaatgga gggttttatg taaaacctgg tggcaccacg
181 tcaggtgatg ctacaaccgc ttacgcaaat tctgtcttta acatctttca ggcagtttagc
241 tctaatatta ataggctact ttctgttgat agtaatgttt gtaacaattt gtatgtcaaa
301 aagcttcagc gctctatcta tgacaattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacgg

//

LOCUS MN312412 311 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 12111505 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312412

VERSION MN312412

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 311)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 311)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..311
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="12111505"
/host="Myotis chinensis"
/db_xref="taxon:2419667"
/country="China"
gene <1..>311
/gene="RdRp"
CDS <1..>311
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88032"
/translation="GSKHTTCCSSTD RYYRLCNELAQVLTEVVYSNGGFYMKPGGTTS
GDATTAYANSVFNIFQATSANINRLLSVDSNNC>NNLGVKALQRRLYDCCYRSSHVDD
L"

ORIGIN

1 gggttctaag catactacat gctgtagctc tacagatcgt tattacagac tatgcaatga
61 gctggctcag gtgctcacag aggtgtgta ttccaatggt gggttctata tgaagcccgg
121 tggtaaca tctggtgatg ccacaacagc ttatgcaaat tctgtctta acatcttca
181 ggctactagt gcaaacatta acagactct tagtgttgac agtaataact gtaacaatct
241 tgggtggaag gctctgcagc gtcgtttgta cgactgttgat tatagatctt ctcattgtga
301 tgatgatctt g

//

LOCUS MN312413 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 13022314 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312413
VERSION MN312413
KEYWORDS .

SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="13022314"
/host="Myotis sp."
/db_xref="taxon:393045"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88033"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSVDASFVDEYFGYLRKHFSMMI"

ORIGIN

1 agagcattac ctaatgat tagaatgatt tccgctatga tcttgggttc taagcagtc
61 acgtgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtctta
121 acagaggta tctattctaa tgggtggttc tacctaaac ctggtggtac cacttctggt
181 gatgctacta ctgcatacgc caattctggt ttaacattt ttcaggcagt tagtgctaat
241 gtcaacaggt tgcttggtgt tgatagcaac acatgcaata atcttgaagt caagcaatta
301 cagcgttaagc tttatgattg ctgctacaga tcacttagtg ttgatgctag ttttgggat
361 gagtatttg gctatctacg taagcatttt tctatgatga tt

//

LOCUS MN312414 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 13022317 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312414

VERSION MN312414

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="13022317"

/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88034"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSV DASFVDEYFGYLRKHFSMM"

ORIGIN

1 agagcattac ctaatatgat tagaatgatt tccgctatga tcttgggttc taagcacgtc
61 acgtgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtetta
121 acagaggta tctattctaa tgggtggttc tacctaaac ctggtggtac cacttctggt
181 gatgctacta ctgcatacgc caattctgtt ttaacattt ttcaggcagt tagtgctaat
241 gtcaacaggt tgcttggtgt tgatageaac acatgcaata atcttgaagt caagcaatta
301 cagcgtaaagc tttatgattg ctgctacaga tcatctagtg ttgatgctag ttttgggat
361 gagtattttg gctatctacg taagcatttt tctatgatga t

//

LOCUS MN312415 632 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 13022322 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312415

VERSION MN312415

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 632)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 632)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..632
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="13022322"
/host="Myotis ricketti"
/db_xref="taxon:2419667"
/country="China"

gene <1..>632

CDS /gene="RdRp"
<1..>632
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88035"
/translation="ILGSKHTTCCSNTDRYYRLCNELAQVLTEVVYSNGGFYMKPGGT
TSGDATTAYANSVFNIFQATSANINRLLSVDSNNCENNIGVKALQRRLYDCCYRSSHVD
DDFVTEYYNYLRKHFSMLMSDDGVVCYNSEYAALGYVADISAFKATLYYQNNVFMST
AKCWVEPDINKGPHEFCSQHTMQIVDEEGKYYPDPSPRILSAGVVFVDD"

ORIGIN

1 gattctgggt tctaacata ctacatgctg tagcaacaca gatcggtatt atagactgtg
61 taatgagctt gtcagggtgc ttacagaggt tgttactcc aatgggtggt tctatatgaa
121 acctggaggt actacttctg gtgatgccac cacagcttat gccaactcag tctttaacat
181 ctttcaggct accagcgcta atattaacag acttcttagt gtagacagta ataactgtaa
241 caacatcggg gtgaaagcct tacagcgacg tctttacgac tgctgttata ggctgctca
301 tgttgacgat gattttgta ctgagtatta caattatctt agaaaacatt tttcttggat
361 gattttgct gacgatgggtg tggctctgta caatagtgag tatgctgcac ttggttatgt
421 cgctgacatc agtgcattta aggctacttt gtactaccag aacaatggtt tcatgagtac
481 tgctaagtgt tgggttgaac ctgacattaa caaggccct catgagtttt gttctcaaca
541 tactatgcaa atagttgatg aggaaggtaa gtactatttg ccataccag atccatccag
601 aattttgct gctgggtggtt ttgttgatga tc

//

LOCUS MN312416 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 13022324-2 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312416

VERSION MN312416

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="13022324-2"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88036"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSVDA SFVDEYFGYLRKHFSMM"

ORIGIN

1 agagcattac ctaatgat tagaatgatt tccgctatga tcttggttc taagcacgctc
61 acgtgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtctta
121 acagaggta tctattctaa tggtggttc tacctaaac ctggtggtac cacttctggt
181 gatgctacta ctgcatacgc caattctgtt ttaacattt ttcaggcagt tagtgctaat
241 gtcaacaggt tgcttggtgt tgatagcaac acatgcaata atcttgaagt caagcaatta
301 cagcgaagc tttatgattg ctgctacaga tcatctagtg ttgatgctag ttttgggat
361 gagtatttg gctatctacg taagcattt tctatgatga t

//

LOCUS MN312417 365 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 13022328 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312417

VERSION MN312417

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..365
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="13022328"
/host="Rhinolophus ferrumequinum"
/db_xref="taxon:2419667"
/country="China"

gene <1..>365
/gene="RdRp"

CDS <1..>365
/gene="RdRp"

/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88037"
/translation="ILGSKHTTCCNTEERYRLCNELAQVLTEVVYSNGGFYLPKGGT
TSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNVGVKALQRELYDNCYRSSTVD
DSFVDKYYGYLRKHFSMMI"

ORIGIN

1 tgatttagg ttcaaagcac acaacttget gtaaacactga agagcggtat tategcttat
61 gtaatgagct tgcgcaagtg ttgacagaag ttgtttatc taatggtggt tttatttga
121 aaccaggtgg tactactgta ggtgacgcta ctacagctta cgtaactca gtgttaaca
181 tctccaage agtcagtgcc aatattaacc gcttacttag tatcgatagt aatgtgtgta
241 ataatgttgg cgtaaagct ctacagagag agttgtatga taactgttac aggtcatcga
301 ctgtggatga ttcatgtga gataagtatt acggttatct ccgtaagcat ttctcaatga
361 tgatc

//

LOCUS MN312418 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 1302238 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312418

VERSION MN312418

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="1302238"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88038"

/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI

YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSVDFVDEYFGYLRKHFSMMI"

ORIGIN

1 agagcattac ctaatgat tagaatgatt tccgctatga tcttggttc taagcagtc
61 acgtgctgta ctgctagtga caggttttat agactctgta atgagttggc ccaagtctta
121 acagaggta tctattctaa tgggtggttc tacctaaac ctggtggtac cacttctggt
181 gatgctacta ctgcatacgc caattctgtt ttaacattt ttcaggcagt tagtgctaat
241 gtaacaggt tcttggtgt tgatagcaac acatgcaata atcttgaagt caagcaatta
301 cagcgaagc tttatgattg ctgctacaga tcatctagtg ttgatgctag ttttgggat
361 gagtatttg gctatctacg taagcattt tctatgatga tt

//

LOCUS MN312419 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate 2014Bat02 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312419

VERSION MN312419

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="2014Bat02"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88039"

/translation="DRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEM

VYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQ

RKLYDCCYRSSSVDFVDEYFGYLRKHFSMMI"

ORIGIN

1 gtgatagagc ttgccaac atgattagaa tgattctgc aatgatactt ggttctaagc
61 acgttaactg ctgtagttct agcgaatagg actacagatt gtgtaacgaa ctgacacaag

121 ttttaacaga aatggttat tcaaacggtg gcttttatgt caaacctggt ggtactacat
181 ctggtgatgc tacaacagct tatgccaatt cagtttttaa catatttcag gcaactagtg
241 caaatgttaa ccgyttgttg agtgttgata gtaatacatg taacaacata gaagttaage
301 aattgcagcg taagtgtat gattgttgtt atcgatcatc aagtgtggat caaagttttg
361 ttgaagagta ctttggttac ctctgtaaac acttttctat gatga

//

LOCUS MN312420 412 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate 2014Bat04 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312420

VERSION MN312420

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 412)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 412)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..412

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="2014Bat04"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>412

/gene="RdRp"

CDS <1..>412

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88040"

/translation="KCDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLT
EMVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQ
LQRKLYDCCYRSSSVDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 aaatgtgata gagetttgcc caacatgatt agaagattt ctgcaatgat acttggttct
61 aagcaggtta actgctgtag tcttagcgat aggtactaca gattgtgtaa cgaactagca
121 caagttttaa cagaaatggt ttattcaaac ggtggctttt atgtcaaacc tgggtgtact
181 acgtctggtg atgctacaac agcttacgcc aattcagttt ttaacatatt tcaggcaact
241 agtgcaaatg ttaaccgctt gttgagtgtt gatagtaata catgtaacaa catagaagtt
301 aagcaattgc agcgtaaagt gtatgattgt tgttatcgat catcaagtg ggatcaaagt
361 tttgtgaag agtactttgg ttaccttctg aagcactttt ctatgatgat tc

//
LOCUS MN312421 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 6454-1 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312421

VERSION MN312421

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="6454-1"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88041"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSVNINRILGVNSNTCNNLTVKELQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagctttgc ctaatatgat tcgatgata tccgcatga ttttgggttc taagcatgaa
61 aattgttga ctaactctga ccgtattat agactatga atgagtggc tcaagtgcta
121 actgaagtgg tctattctaa cggcggtttt tatttaaac caggtggtac gacatcaggt
181 gatgcaacta cagcttatgc caattctgt ttaacatct tcaagcagt tagtgtaac
241 attaatcgca ttttggcgt taatagcaat actgtaata actgacagt taaagagttg
301 caacgctcat tgtatgaaa ttgtatcgc actagtactg tagaccctgc cttttagac
361 acgtttatg gtacttacg caaacattc tctatgatga tt

//

LOCUS MN312422 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate 6454-2 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312422

VERSION MN312422

KEYWORDS .

SOURCE *Miniopterus* bat coronavirus HKU8

ORGANISM *Miniopterus* bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Miniopterus bat coronavirus HKU8"

/mol_type="genomic RNA"

/isolate="6454-2"

/host="Miniopterus fuliginosus"

/db_xref="taxon:694001"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88042"

/translation="RALPNMIRMISAMILGSKHVNCCNSDRYYRLCNELAQVLTEVV

YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSLQR

MLYDNCYRSSAVDPGFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaacatgat tcgtatgatt tctgctatga ttttgggttc taagcatggt

61 aattgttgta ccaattcaga tcgtattat agactttgta atgaacttgc acaagttctt

121 actgaggtgg tctattctaa cgggggttcc tatatgaagc ctggtggtac tacttctggt

181 gatgccacta ctgctatgc taattctgtt tcaacatat tccaggctgt tagtgctaat

241 attaatagga ttttgggtat taatagtaat acctgtaata atcttactgt taagtcactt

301 cagcgcgatgc tctatgacaa ttgttataga agttctgccg ttgatctggt ttttgttgat

361 acgttttatg gctacttgcg taagcatttc tctatgatga tt

//

LOCUS MN312423 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate BT140816 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312423

VERSION MN312423

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="BT140816"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88043"

/translation="CDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTE

MVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQL

QRKLYDCCYRSSSVDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 tgtgatagag cttgcccac catgattaga atgatttctg caatgatact tgggtcctaa
61 catgttaact gctgtagtc tagcgatagg tactacagat tgtgtaacga actagcacia
121 gtttaacag aaatggttta ttcgaacggt ggcttttacg tcaaacctgg tggactaca
181 tctggtgatg ctacaacagc ttatgccaat tcagtttita acatatttca ggcaactagt
241 gcaaatgta accgctgtt gagtgttgat agtaatacat gtaacaacat agaagttaag
301 caattgcagc gtaagttgta tgattgttgt tatcgatcat caagtgtgga tcaagtttt
361 gttgaagagt actttggta ccttcgcaaa cacttttcta tgatgatt

//

LOCUS MN312424 348 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate BT140828 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312424

VERSION MN312424

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..348

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="BT140828"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>348

/gene="RdRp"

CDS <1..>348

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88044"

/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMV

YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR

KLYDCCYRSSSVSD"

ORIGIN

1 atagagcttt gcccaacatg attagaatga ttctgcaat gatacttgg tctaagcatg
61 ttaactgctg tagttctagc gatagtgact acagattgtg taacgaacta gcacaagttt
121 taacagaaat ggtttattcg aacggtggct tttatgtcaa acctggtggg actacatctg
181 gtgatgctac aacagcttat gccaatcag ttttaacat atttcaggca actagtgcaa
241 atgttaaccg cttgttgagt gttgatagta atacatgtaa caacatagaa gttaagcaat
301 tgcagcgtaa gttgtatgat tgtgttatc gatcatcaag tgtggatc

//

LOCUS MN312425 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate BT140829 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312425

VERSION MN312425

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="BT140829"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88045"
/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMV
YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDCCYRSSSVDDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tetgcaatga tacttggttc taagcacgtt
61 aactgctgta gtctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttattcaaaa cgggtggcttt tatgtcaaac ctggtggtac tacatctggt
181 gatgtacaaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
241 gtaaccgtt tgttgagtgt tgatagtaat acatgtaaca acatagaagt taagcaattg
301 cagcgttaagt tgtatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa
361 gagtactttg gttactctcg taagcacttt tctatgatga tt

//

LOCUS MN312426 405 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate BT140832 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312426

VERSION MN312426

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="BT140832"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"
gene <1..>405
/gene="RdRp"
CDS <1..>405
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88046"
/translation="DRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEM
VYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQ
RKLYDCCYRSSSVDQSFVEEYFGYLKHFSSMM"

ORIGIN

1 gtgatagagc ttgccaac atgattagaa tgatttctgc aatgatactt ggttctaagc
61 acgttaactg ctgtagttct agcgataggt actacaggtt gtgtaacgaa ctagcacaag
121 ttttaacaga aatggtttat tcaaacggtg gcttttatgt caaacctggt ggtactacat
181 ctggtgatgc tacaacagct tatgccaatt cagtttttaa catatttcag gcaactagtg
241 caaatgttaa ccgcttggtg agtggtgata gtaacacatg caacaacata gaagttaagc
301 aattgcagcg taagtgtat gattgtggt atcgatcadc aagtgtggat caaagtttg
361 ttgaagagta ctttggttac cttegcaaac acttttctat gatga

//

LOCUS MN312427 415 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate BT140835 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312427
VERSION MN312427
KEYWORDS .
SOURCE Bat coronavirus 512
ORGANISM Bat coronavirus 512
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.
REFERENCE 1 (bases 1 to 415)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 415)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..415
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="BT140835"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"

gene /country="China"
<1..>415
/gene="RdRp"
CDS <1..>415
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88047"
/translation="RALPNMIRMISAMILGSKHVNCCSSDRYYRLCNELAQVLTEMV
YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDCCYRSSSVDQSFVEEYFGYLRKHFSMMILYDD"

ORIGIN

1 agagcttgc ccaacatgat tagaatgatt tctgcaatga tacttggttc taagcatggt
61 aactgctgta gttctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttattcgaa tgggtgcttt tatgtcaaac ctggtggtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtc ttaacatat ttcaggcaac tagtgcaaat
241 gtaaccgct tgttgagtgt tgatagtaac acatgcaaca acatagaagt taagcaattg
301 cagcgtaatg tgatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa
361 gagtactttg gttatctcg taaacacttt tccatgatga tactttatga tgatt

//

LOCUS MN312428 425 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate BT140844 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312428

VERSION MN312428

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 425)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 425)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..425
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="BT140844"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"

gene <1..>425
/gene="RdRp"

CDS <1..>425
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88048"
/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMV
YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLRR
KLYDCCYRSSSVDQSFVEEYFGYLRKHFMMILSDDGVV"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tctgcaatga tacttggttc taagcatggt
61 aactgctgta gttctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttattcgaa tgggtggcttt tatgtcaaac ctggtggtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtc ttaacatat ttcaggcaac tagtgcaaat
241 gtaaccgct tgttgagtgt tgatagtaac acatgcaaca acatagaggt taagcaattg
301 cggcgttaagt tgatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa
361 gagtactttg gttatcttcg taaacacttt tccatgatga tactttctga tgacggtgct
421 gtagt

//

LOCUS MN312429 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate BT140855 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312429

VERSION MN312429

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="BT140855"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88049"

/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMV

YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDCCYRSSSVDSQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tetgcaatga tacttggttc taagcacgtt
61 aactgctgta gtctagcga taggtactac aggttggtga acgaactagc acaagtttta
121 acagaaatgg ttattcaaa cgggtgcttt tatgtcaaac ctggtggtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
241 gtaaacgct tgttgagtgt tgatagtaac acatgcaaca acatagaagt taagcaattg
301 cagcgttaagt tgtatgattg ttgttatcga tcatcaagtg tggatcaaag tttgttgaa
361 gactactttg gttactctgc caaacacttt tctatgatga tt

//

LOCUS MN312430 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate BT140867 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312430

VERSION MN312430

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="BT140867"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88050"

/translation="DRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEM

VYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR

RKLYDCCYRSSSVDSQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 gtgatagagc ttgccaac atgattagaa tgatttctgc aatgatactt ggttctaagc
61 atgtaactg ctgtagttct agcgaatggt actacagatt gtgtaacgaa ctagcacaag

121 ttttaacaga aatggttat tcgaacggtg gcttttacgt caaacctggt ggtactacat
181 ctggtgatgc tacaacagct tatgccaatt cagttttta catatttcag gcaactagtg
241 caaatgttaa ccgcttggtg agtggtgata gtaatacatg taacaacata gaagttaagc
301 aattgcagcg taagtgtat gattgttgt atcgatcatc aagtgtggat caaagttttg
361 tgaagagta ctttggttac cttcgcaaac acttttctat gatga

//

LOCUS MN312431 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate BT140878 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312431

VERSION MN312431

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="BT140878"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88051"

/translation="CDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTE

MVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQL

QRKLYDCCYRSSSVDQSFVEEYFGYLRKHFSSMMI"

ORIGIN

1 tgtgatagag cttgcccac catgattaga atgatttctg caatgatact tgggtctaag

61 cacgttaact gctgtagtc tagcgatagg tactacaggt tgtgtaacga actagcacia

121 gtttaacag aatggttta tcaaacggt ggctttatg tcaaactgg tgggtactaca

181 tctggtgatg ctacaacagc ttatgccaat tcagtttta acatattca ggcaactagt

241 gcaaatgta accgctgtt gagtgttgat agtaacacat gcaacaacat agaagttaag

301 caattgcagc gtaagttgta tgattgtgt tatcgatcat caagtgtgga tcaaagttt

361 gttgaagagt actttggtta ccttcgcaa cacttttcta tgatgatt

//
LOCUS MN312432 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate BT140885 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312432
VERSION MN312432
KEYWORDS .
SOURCE Bat coronavirus 512
ORGANISM Bat coronavirus 512
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.
REFERENCE 1 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..402
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="BT140885"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88052"
/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRRLCNELAQVLTEMV
YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDCCYRSSSVDSQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tctgcaatga tacttggttc taagcatggt
61 aactgctgta gttctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttatctgaa cggtggcttt tacgtcaaac ctggtggtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
241 gtaaacgct tgttgagtgt tgatagtaat acatgtaaca acatagaagt taagcaattg
301 cagcgttaagt tgtatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa
361 gagtactttg gttacctcg caaacacttt tctatgatga tt

//
LOCUS MN312433 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate BY140552 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312433

VERSION MN312433

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="BY140552"

/host="Myotis horsfieldii"

/db_xref="taxon:2042696"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88053"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV

YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSLQR

SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatatgat tcgtatgata tctgcatga ttttgggttc taagcatgag
61 aattgttgta ctaactctga ccgttactat agactatgca acgagttggc tcaagtgcta
121 accgaggtag tctattctaa tggcgggttt tatttaaac caggtgttac gacatcgggt
181 gatgcaacga cggcttatgc caactcagtg ttaatatct tcaagcagt tagtgctaac
241 attaategca ttttgggcgt taatagcaat acttgtaata acttgacagt taaaagttg
301 cagegetctt tgatgacaa ttgtatcgc actagtactg tggaccctgc cttttagac
361 acatttatg gctacttacg caaacatttc tctatgatg tt

//

LOCUS MN312434 391 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate 8350 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312434

VERSION MN312434

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 391)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 391)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..391

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="8350"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>391

/gene="RdRp"

CDS <1..>391

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88054"

/translation="GWDYPKCDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNEL

AQVLTEMVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNN

IEVKQLQRKLYDCCYRSSSVDSQSFVEEY"

ORIGIN

1 tggttgggat tatectaaat gtgatagagc ttgccaac atgattagaa tgattctgc
61 aatgatactt ggttctaagc acgttaactg ctgtagtct agcgataggt actacagatt
121 gtgtaacgaa ctagcacaag ttttaacaga aatggtttat tcaaacggtg gcttttatgt
181 caaacctggt ggtactacat ctggtgatgc tacaacagct tatgccaatt cagttttaa
241 catatttcag gcaactagtg caaatgtaa ccgcttgttg agtgttgata gtaatacatg
301 taacaacata gaagtaagc aattgcagcg taagtgtat gattgttgt atcgatcatc
361 aagtgtggat caaagtttg ttgaagagta c

//

LOCUS MN312435 388 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8603 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312435

VERSION MN312435

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 388)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 388)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..388
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8603"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>388
/gene="RdRp"
CDS <1..>388
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88055"
/translation="GWDYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL
AQVLTEVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN
LTVKSLQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 tgggtgggat tatcctaaat gtgatagagc attgcctaat atgatccgta tgatatccgc
61 catgattttg ggttctaagc atgagaattg ttgtactaac tctgaccgtt attatagact
121 atgcaacgag ctggctcaag tgctaaccga ggtggtctat tctaatggcg gtttttactt
181 aaaaccaggt ggtacgacat cgggtgatgc aacgacggct tatgccaatt cagtgtttaa
241 tatcttcaa gcagttagt ctaacattaa tcgcattttg ggcgtaata gcaatacttg
301 caataacttg acagttaaaa gtttcagcgc ctctttgat gacaattgtt atcgcactag
361 tactgtggac cctgcctttg tagacaca

//

LOCUS MN312436 391 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8604 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.
ACCESSION MN312436
VERSION MN312436
KEYWORDS .
SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 391)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 391)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..391
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8604"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>391
/gene="RdRp"
CDS <1..>391
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88056"
/translation="GLGFPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL
AQVLTEVVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN
LTVKSLQRSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 gggttgggat ttctaatg tgatagagca ttgcctaata tgatccgtat gatatccgcc
61 atgatttgg gttctaaaca tgagaattgt gtactaact ctgaccgta ttagacta
121 tgcaacgagt tggctcaagt gtaaccgag gtggtctatt ctaatggcgg ttttaccta
181 aaaccaggtg gtacgacatc gggatgatca acgacagctt atgccaattc agtgtttaat
241 atcttcaag cagttagtgc taacattaat cgcatttgg gcgtaatag caatactgc
301 aataactga cagttaaaag ttgcagcgc tctttgatg acaattgta tcgcactagt
361 actgtggacc ctgccttgt agacacattt a

//

LOCUS MN312437 372 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8606 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312437

VERSION MN312437

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..372
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="8606"
 /host="Miniopterus pusillus"
 /db_xref="taxon:2042696"
 /country="China"
gene <1..>372
 /gene="RdRp"
CDS <1..>372
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88057"
 /translation="GWDYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL
 AQLVTEVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN
 LTVKSLQRSLYDNCYRTSTVDP"

ORIGIN

1 ggttgggatt atcctaatg tgatagagca tgcctaata tgatccgtat gatatccgc
61 atgatttgg gttctaagca tgagaattgt gtactaact ctgaccgta ttatagacta
121 tgcaacgagt tggetcaagt gctaactgag gtggtctatt ctaatggcgg ttttatcta
181 aaaccaggtg gtacgacatc gggatgca acgacggcct atgccaattc agtgtttaat
241 atcttcaag cagtcagtgc taacattaat cgcatttgg gtgtaatag caactctgc
301 aataactga cagtaaaag ttgcagcgc tcttgtatg acaattgta tcgcactagt
361 actgtggacc cc

//

LOCUS MN312438 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8608 RNA-dependent RNA polymerase (RdRp)
 gene, partial cds.

ACCESSION MN312438

VERSION MN312438

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8608"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>387
/gene="RdRp"
CDS <1..>387
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88058"
/translation="GWDYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL
AQVLTEVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN
LTVKSLQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 ggttgggatt atcctaatg tgatagagca ttgctaata tgattcgtat gatatccgcc
61 atgatttgg gttctaagca tgagaattgt tgtactaact ctgaccgta ctatagacta
121 tgcaatgagt tggctcaagt gctaactgag gtgggtctatt ctaatggcgg tttttacta
181 aaaccaggtg gtacgacatc gggatgatca acgacggcct atgccaattc agtgtttaat
241 atctttcaag cagtcagtgc taacattaat cgcattttgg gcgtaatat caatacttgc
301 aataactga cagttaaaag tttgcagcgc tctttgatg acaattgta tcgcactagt
361 actgtggacc ctgcctttgt agacaca

//

LOCUS MN312439 368 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8612 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312439

VERSION MN312439

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8612"
/host="Miniopterus pusillus"

/db_xref="taxon:2042696"
/country="China"
gene <1..>368
/gene="RdRp"
CDS <1..>368
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88059"
/translation="GWDYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL
AQVLTEVVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN
LTVKSLQRSLYDNCYRTSTV"

ORIGIN

1 ggttgggatt atcctaatg tgatagagca tgcctaata tgattcgtat gatatccgcc
61 atgatttgg gttctaagca tgagaattgt tgtactaact ctgaccgta ctatagacta
121 tgcaacgagt tggetcaagt gctaaccgag gtagtctatt ctaatggcgg ttttattta
181 aaaccaggtg gtacgacatc gggatgca acgacggcct atgccaattc agtgtttaat
241 atcttcaag cagttagtgc taacattaat cgcatttgg gcgtaatag caactctgt
301 aataactga cagtaaaag ttgcagcgc tctttgatg acaattgta tcgcactagt
361 actgtgga

//

LOCUS MN312440 393 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9147 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312440

VERSION MN312440

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..393
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9147"
/host="Myotis ricketti"
/db_xref="taxon:393045"
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CDS <1..>393
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/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTEVI
YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
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ORIGIN

1 tagggcatta cctaataatga ttagaatgat ttccgctatg attttggggtt ctaagcatgt
61 cacttggtgt actgctagtg acaggtttta cagactctcc aatgagctgg cccaagtctt
121 aacggaggtt atctattcta atgggtggtt ttacctcaaa cctgggggta ccactctgg
181 tgatgaacc actgcatatg ccaattctgt gtttaacatt ttcaggctg ttagtgcaa
241 tgcaatagg ttgcttggtg ttgatagcaa cacatgtaac aatctagaag tcaagcaatt
301 acagcgtgaa ctttatgatt gctgctacag gtcactaat gttgatgcca gttttgtaga
361 tgagtatttt gggtatctac gtaagcattt ttc

//

LOCUS MN312441 358 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9179 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312441

VERSION MN312441

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9179"
/host="unknown"
/db_xref="taxon:393045"
/country="China"

gene <1..>358
/gene="RdRp"

CDS <1..>358
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/protein_id="QGA88061"
/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS
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YDCCYRSSSVDAASFVDE"

ORIGIN

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181 tactactgca tacccaatt ctgtctttaa cattttcag gcagttagtg ctaatgtaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtcaagc aattacagcg
301 taagctttat gattgctgct acagatcadc tagtgtgat gctagtttg tggatgag

//

LOCUS MN312442 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 150905 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312442

VERSION MN312442

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="150905"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

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/gene="RdRp"

CDS <1..>359
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/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS
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YDCCYRSSSVDAASFVDE"

ORIGIN

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181 tactactgca tacgccaatt ctgtctttaa catctttcag gcagttagtg ctaatgcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtcaagc aattacagcg
301 taagctttat gattgctgct acagatcatc tagtgttgat gctagtttg tggatgagt

//

LOCUS MN312443 363 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 150906 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312443

VERSION MN312443

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..363

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="150906"

/host="Myotis ricketti"

/db_xref="taxon:393045"

/country="China"

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CDS <1..>363

/gene="RdRp"

/codon_start=2

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NGGFYLPKPGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQRKL

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ORIGIN

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181 tactactgca tacgccaatt ctgtctttaa catctttcag gcagttagtg ctaatgcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtcaagc aattacagcg

301 taagctttat gattgctgct acagatcatc tagtggtgat gctagtttg tggatgagta
361 ttg

//

LOCUS MN312444 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 150907 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312444

VERSION MN312444

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="150907"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

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/gene="RdRp"

CDS <1..>359

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YDCCYRSSNVDASFVDE"

ORIGIN

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121 agtcattat tctaagtggt ggtttacct caagcctggg ggtactactt ctggtgatgc
181 tactactgcg tatgccaatt ctgtgttaa tattttcag gctgtcagtg ccaatgtcaa
241 taggttgctc ggtgttgata gcaacacatg caataaccta gaagtcaagc aattacagcg
301 taagctctat gattgctgct acaggtcatc caatgtgat gctagtttg tagatgagt

//

LOCUS MN312445 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 150912 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.
ACCESSION MN312445
VERSION MN312445
KEYWORDS .
SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 359)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 359)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..359
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/isolate="150912"
/host="Miniopterus schreibersii"
/db_xref="taxon:393045"
/country="China"
gene <1..>359
/gene="RdRp"
CDS <1..>359
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88065"
/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS
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YDCCYRSSSVDASFVDE"

ORIGIN

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181 tactactgca tacgccaatt ctgtctttaa catttccag gcagttagt ctaatgtcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtaagc aattgcagcg
301 taagctttat gattgctgct acagatcatc tagtgttgat gctagtttg tggatgagt

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LOCUS MN312446 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 150935 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312446
VERSION MN312446
KEYWORDS .
SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="150935"

/host="Miniopterus sp."

/db_xref="taxon:393045"

/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88066"

/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS

NGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQRKL

YDCCYRSSVVDASFVDE"

ORIGIN

1 attacctaat atgattagaa tgattccgc tatgatcttg ggttctaagc acgtcacatg
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181 tactactgea tacgccaatt ctgtctttaa catctttcag gcagttagtg ctaatgtcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtaagc aattacagcg
301 taagctttat gattgctgct acagatcatc tagtgttgat gctagtttg tggatgagta

//

LOCUS MN312447 358 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 150943 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312447

VERSION MN312447

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 358)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..358
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/host="Myotis ricketti"
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/country="China"
gene <1..>358
/gene="RdRp"
CDS <1..>358
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88067"
/translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
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ORIGIN

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121 agtgggtctat tctaacggcg gtttttattt aaaaccaggt ggtacgacat caggtgatgc
181 aacgacagct tatgccaatt ctgttttaa tatcttcaa gcagtcagtg ctaacattaa
241 tcgcattttg ggcgttaata gcaatacttg caataacttg acagttaaag agtgcaacg
301 ctcatgtat gacaattgt atcgactag tactgttgac cctgccttg tagacacg

//

LOCUS MN312448 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 150945 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312448
VERSION MN312448
KEYWORDS .
SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..360
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/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88068"
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YDCCYRSSSVDASFVDE"

ORIGIN

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181 tactactgca tacgccaatt ctgtcttaa cattttcag gcagtagtg ctaatgtcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtaagc aattacagcg
301 taagcttat gattgctgct acagatcatc tagtgttgat gctagtttg tggatgagta

//

LOCUS MN312449 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 151182 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312449

VERSION MN312449

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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 /organism="Rhinolophus bat coronavirus HKU2"
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 /isolate="151182"
 /host="Rhinolophus sinicus"
 /db_xref="taxon:693998"
 /country="China"
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 /gene="RdRp"
 CDS <1..>408
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88069"
 /translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
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ORIGIN

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 241 tetaatatta ataggctact ttctgttgat agtaatg ttt gtaacaattt gtatgtcaaa
 301 aagcttcagc gctctatcta tgacaattgt tatagatcta gtgctgttga tgacaatgtt
 361 gttacggatt ttataacta tcctaagaag catttttcta tgatgatt

//

LOCUS MN312450 411 bp RNA linear VRL 07-NOV-2019
 DEFINITION Rhinolophus bat coronavirus HKU2 isolate 151194 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312450

VERSION MN312450

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="151194"

/host="Rhinolophus sinicus"
/db_xref="taxon:693998"
/country="China"
gene <1..>411
/gene="RdRp"
CDS <1..>411
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88070"
/translation="KCDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLN
EVVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKK
LQRSIYDNCYRSSAVDDNVVTFYNYLKKHFSMMI"

ORIGIN

1 aagtgtgaca gagctatgcc tagtatgata cgtatgcttg ctgctatggt tcttggatcg
61 aagcatgta catgtgttac agatagtac aggtttata gactttctaa tgaacttgcg
121 caagttctta atgaggttgt gcattctaata ggagggtttt acgtaaaacc tgggtggcacc
181 acgtcaggtg atgctacaac tgcttatgca aattctgtct ttaacatctt tcaggcagtt
241 agctctaata ttaataggct accttctgtt gatagtaatg tttgtaacaa tttgtatgct
301 aaaaagcttc agcgcctctat ctatgacaat tgttatagat ctagtgtgtg tgatgacaat
361 gttgttacgg attttataa ctatctaag aagcattttt ctatgatgat t

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LOCUS MN312451 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 151198 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312451

VERSION MN312451

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="151198"
/host="Rhinolophus sinicus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>401

CDS /gene="RdRp"
<1..>401
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88071"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLKPGGTTSGDATTAYANSVFSIFQAVSANINRILGVNSNTCNNLTVKDLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMM"

ORIGIN

1 agagcattgc ctaatgat tcgtatgata tccgcatga tttgggttc caagcatgag
61 aattgttga ccaactctga tcgtattat agactatgta atgagttagc tcaagtgtta
121 actgaggtag tctattctaa tgggtggttt tatttaaac caggtggtac gacatcgggt
181 gatgcaacga cggcttatgc caactctgtg ttcagcatct tcaagcagt cagtgctaac
241 attaatcgca tattgggtgt taatagcaat acttgaata acttgacagt taaagattg
301 cagcgtctgt tgtatgataa ttgtatcgc actagtactg tagaccctgc cttttagac
361 acgttttatg gctacttacg caaacatttc tctatgatga t

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LOCUS MN312452 410 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 151593 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312452

VERSION MN312452

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..410
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="151593"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>410
/gene="RdRp"

CDS <1..>410
/gene="RdRp"
/codon_start=3

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88072"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 aatgtgatag agctttgect aatatgattc gtatgatc cgccatgatt ttgggttcta
61 agcatgaaaa ttgtgtact aattctgacc gttattatag attatgtaac gagttggcac
121 aagtgctaac tgaagtggc tattctaacg gcggtttta tttaaaccac ggtggtacga
181 catcaggtga tgcaacgacg gcttatgcca attctgttt taacatctt caagcagta
241 gtgctaacat taatgcatt ttgggcgta atagcaatac ttgcaatac ttgacagta
301 aagagttgca acgctcattg tatgacaatt gttatcgcac tagtactgta gacctgcct
361 ttgtagacac gtttatggt tacttacgca aacattctc tatgatgatt

//

LOCUS MN312453 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 151690 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312453

VERSION MN312453

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="151690"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88073"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL

QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 tgtgatagag ctttgctaa tatgattcgt atgatatccg ccatgatttt gggttctaag
61 catgaaaatt gttgactaa ctctgaccgt tattatagac tatgtaatga gttggcacia
121 gtgctaactg aagtggctta tttaacggc gggttttatt taaaaccagg tggtagaca
181 tcaggtgatg caacgacagc ttatgccaat tctgtttta acatctttca agcagttag
241 gctaacatta atcgcatttt gggegttaat agcaatactt gcaataactt gacagttaa
301 gagttgcaac gctcattgta tgacaattgt tategcacta gtactgtaga cccagccttt
361 gtagacacgt tttatggta ttacgcaaa catttcteta tgatgatt

//

LOCUS MN312454 398 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 7837 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312454

VERSION MN312454

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..398

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="7837"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>398

/gene="RdRp"

CDS <1..>398

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88074"

/translation="AMPSLIRMLAAMVLGSKHVTCCTSDRFYRLSNELAQVLNEVVH

SNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRS

IYDNCYRSSAVDDTVVTDYNYLKKHFSMM"

ORIGIN

1 agctatgctt agtttgatac gtatgcttgc tgctatgggt cttggatcta agcaggttac
61 atgttgatac gacagtgata ggttttacag actttctaat gaacttgctc aagttcttaa
121 tgaagttgtg cattctaag gaggtttta tgataaaccc ggtggcacca catcaggtga

181 tgctacgact gcttatgcaa attctgttt taacatcttt caggcagtta gctctaatat
241 taacaggctt ctttctgttg atagtaatgt gtgtaacaat ttgtatgtca aaaagctcca
301 gcgctctatc tatgacaatt gttataggtc tagtgtctgt gatgacactg ttgttacaga
361 cttttataac tatcttaaga agcacttttc tatgatga

//

LOCUS MN312455 355 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8006 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312455

VERSION MN312455

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="8006"

/host="Hipposideros pomona"

/db_xref="taxon:2419667"

/country="China"

gene <1..>355

/gene="RdRp"

CDS <1..>355

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88075"

/translation="LPNMIRMISAMILGSKHVTCDDSSDKYYRLCNELAQVLTEVVYS

NGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNIGVKSLQRKL

YDCCYRSSSVDDSFVD"

ORIGIN

1 actccctaat atgattegca tgatttctgc catgattttg ggttgaagc atgttacttg

61 ctgtgattct tctgataat attaccgtct ctgtaatgag ctcgctcaag ttgttacaga

121 agttgtatat tctaattgtg ggttttatct caagcctggt ggtaccactt ctggcgatgc

181 tacaacggct tatgctaact ctgtgttaa tattttcaa gctgttagcg ccaatattaa

241 caggttgctt agcattgata gcaatgtgtg taataatatt ggtgttaaga gtttgcagcg

301 taagctatat gattgtgtt acagatcttc tcagtagat gattctttg tagac

//

LOCUS MN312456 357 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8010 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312456

VERSION MN312456

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..357

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="8010"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

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/gene="RdRp"

CDS <1..>357

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88076"

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NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDTVVT"

ORIGIN

1 tatgcctagt atgatacgta tgcttgctgc catggttctt ggatctaagc acgttacatg
61 ttgtacagac agtgataggt ttacagact ttctaacgaa cttgcgcaag ttcttaatga
121 gggtgtgcat tctaatggag gttttatgt aaaacctggt ggcactacat caggatgatg
181 tacaactgct tatgcaaatt ctgttttaa cattttcag gcagttagct ctaacattaa
241 caggcttctt tctgttata gtaatgtgtg taacaactg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattgt ataggtctag tgctgttgat gacactgttg ttacaga

//

LOCUS MN312457 364 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8011 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312457

VERSION MN312457

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..364

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="8011"

/host="Rhinolophus sp."

/db_xref="taxon:693998"

/country="China"

gene <1..>364

/gene="RdRp"

CDS <1..>364

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88077"

/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVIHS

NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI

YDNCYRSSAVDDNVVQNYN"

ORIGIN

1 tatgcctagt atgatccgca tgcttgctgc tatggttctt ggatcaaagc atgttacatg
61 ttgtacagac agtgataggt ttacagact ttctaataaa cttgcacaag ttcttaataa
121 ggttatacat tccaatggag gttttatgt aaaacccggg ggcactacat caggtgatgc
181 tacaactgct tatgcaaac ctgtctttaa tattttccag gcagttagct ctaacattaa
241 tagacttctt tctgttgata gtaatgtgtg taacaattta tatgtaaaaa agcttcagcg
301 ctctatctat gataattggt atagatctag tgctgttgat gacaatgttg tacagaatta
361 taac

//

LOCUS MN312458 356 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8012 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312458

VERSION MN312458

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 356)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 356)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..356
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/isolate="8012"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>356
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CDS <1..>356
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88078"
/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDTVYR"

ORIGIN

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1 tatgcctagt atgatacgtg tgcctgctgc tatggttctt ggatctaagc acgttacatg
61 ttgtacagac agtcataggt ttacagact ttctaacgaa cttgcgcaag ttcttaatga
121 agttgtgcat tctaacggag gttttatgt aaaacctggt ggcaactacat caggtgatgc
181 tacaactgct tatgcaaat ctgttttaa catcttcag gcagttagct ctaacattaa
241 taggcttctt tctgttgata gtaatgtgtg taacaactg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattgtt ataggtctag tgctgttgat gacactgtgt acagac
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LOCUS MN312459 362 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8013 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312459
VERSION MN312459
KEYWORDS .
SOURCE Bat alphacoronavirus
ORGANISM Bat alphacoronavirus
Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 362)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..362
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/mol_type="genomic RNA"
/isolate="8013"
/host="unknown"
/db_xref="taxon:2419667"
/country="China"
gene <1..>362
/gene="RdRp"
CDS <1..>362
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88079"
/translation="LPNMIRMISAMILGSKHTTCCNTDERYYRLCNELAQVLTEVVYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNVSVKALQREL
YDNCYRSSGIDDSFMISI"

ORIGIN

1 attaccaac atgattcgta tgatctcagc catgatttg ggtccaac atacaacctg
61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa cttgctcaag ttttaacaga
121 gggtgtctat tccaatggcg gggtttatct aaagcctggt ggtactact ctggtgatgc
181 aacaacagca tatgcaaact ctgttttaa catcttcaa gctgtcagtg ctaacattaa
241 caggttactt tctatcgata gtaacgtgtg taataatgtt agtgtcaaag ctctgcagag
301 agagttgtat gacaactgtt acaggtcgtc gggcatagat gatagcttta tgataagat
361 ta

//

LOCUS MN312460 356 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8014 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.
ACCESSION MN312460
VERSION MN312460
KEYWORDS .
SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 356)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 356)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..356
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="8014"
 /host="Miniopterus sp."
 /db_xref="taxon:2042696"
 /country="China"
gene <1..>356
 /gene="RdRp"
CDS <1..>356
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88080"
 /translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
 NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQRSL
 YDNCYRTSTVDPAFVD"

ORIGIN

1 attgcctaat atgattcgta tgatatccgc catgattttg ggtccaagc atgagaattg
61 ttgtaccaac tctgatcggtt attatagact atgtaatgag ttagctcaag tgctaactga
121 ggtagtctat tctaattggtg gtttttattt aaaaccaggt ggtacgacat cgggtgatgc
181 aacgacggct tatgccaact ctgtgtttaa cattttcaa gcagtcagtg ctaacattaa
241 tcgcatactg ggcgtaata gcaactcttg taataactta acagtaaag atttgcagcg
301 ctggtgtat gataattgtt atcgactag cactgtggac cctgcctttg tagaca

//

LOCUS MN312461 355 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8016 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312461

VERSION MN312461

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"

/isolate="8016"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>355
/gene="RdRp"
CDS <1..>355
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88081"
/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVIHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDNVVQ"

ORIGIN

1 tatgcctagt atgatccgca tgcttgctgc tatggttctt ggatcaaagc atgttacatg
61 ttgtacagac agtगतaggt ttacagact ttctaataa cttgcacaag ttctaatga
121 ggttatacat tccaatggag gttttatgt aaaaccggg ggcactacat caggtgatgc
181 tacaactgct tatgcaaac ctgtcttaa tatttccag gcagtagct ctaacattaa
241 tagacttct tctgtgata gtaatgtgtg taacaattta tatgtaaaa agcttcagcg
301 ctctatctat gataattgt atagatctag tgctgttgat gacaatgtg tacag

//

LOCUS MN312462 345 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8019 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312462

VERSION MN312462

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 345)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 345)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..345
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="8019"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>345
/gene="RdRp"

CDS <1..>345
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88082"
/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVIHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDD"

ORIGIN

1 tatgcctagt atgatccgca tgcttgctgc tatggttctt ggatcaaagc atgttacatg
61 ttgtacagac agtgataggt ttacagact ttctaataaa cttgcacaag ttcttaatga
121 ggttatacat tccaatggag gttttatgt aaaaccggg ggcactacat caggtgatgc
181 tacaactgct tatgcaaact ctgtcttaa tattttccag gcagtagct ctaacattaa
241 tagacttctt tctgttgata gtaatgtgtg taacaattta tatgtaaaaa agcttcagcg
301 ctctatctat gataattggt atagatctag tgctgttgat gacaaa

//

LOCUS MN312463 366 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8024 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312463

VERSION MN312463

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..366
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8024"
/host="Rhinolophus sp."
/db_xref="taxon:2419667"
/country="China"

gene <1..>366
/gene="RdRp"

CDS <1..>366
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88083"

/translation="LPNMIRMISAMILGSKHTTCCNTDERYYRLCNELAQVLTEVVYS
NGGFYLPKPGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNVSVKALQREL
YDNCYRSSGIDDSFMISIM"

ORIGIN

1 attacccaac atgattcgta tgatctcagc catgatttg ggtccaac atacaacctg
61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa ctgtctcaag ttttaacaga
121 ggtgtctat tccaatggcg ggtttatct aaagcctggt ggtactact ctggtgatgc
181 aacaacagca tatgcaact ctgttttaa catcttcaa gctgtcagtg ctaacattaa
241 caggttactt tcatcgata gtaacgttg taataatgt agtgcaaaag ctctgcagag
301 agagttgat gacaactgtt acaggtcgtc gggcatagat gatagctta tgataagat
361 tatgta

//

LOCUS MN312464 358 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8028 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312464

VERSION MN312464

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="8028"

/host="unknown"

/db_xref="taxon:693998"

/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88084"

/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS

NGGFYVKPGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDTVVTD"

ORIGIN

1 tatgcctagt atgatacgta tgcttgctgc catggttctt ggatctaagc acgttacatg

61 ttgtacagac agt gat aggt ttacagact tttaacgaa cttgcgcaag ttctaataga
121 ggttgatgc tctaattgag gttttatgt aaaacctggt ggcactacat caggtgatgc
181 tacaactgct tatgcaaat ctgttttaa catcttcag gcagttagct ctaacattaa
241 caggcttct tctgttgata gtaatgttg taacaactg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattgt ataggtctag tgctgttgat gacactgtg ttacagac

//

LOCUS MN312465 355 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8044 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312465

VERSION MN312465

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="8044"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>355

/gene="RdRp"

CDS <1..>355

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88085"

/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS

NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI

YDNCYRSSAVDDTVYR"

ORIGIN

1 tatgcctagt atgatacgtg tgcctgctgc tatggttctt ggatctaagc acgttacatg

61 ttgtacagac agt gat aggt ttacagact tttaacgag cttgcgcaag ttctaataga

121 agttgtgcat ttaacggag gttttatgt aaaacctggt ggcactacat caggtgatgc

181 tacaactgct tatgcaaat ctgttttaa catcttcag gcagttagct ctaacattaa

241 taggcttct tctgttgata gtaatgttg taacaactg tatgtcaaaa agcttcagcg

301 ctctatctat gacaattgt ataggtctag tgctgttgat gacactgtg acaga

//

LOCUS MN312466 358 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8062 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312466

VERSION MN312466

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="8062"

/host="Miniopterus fuliginosus"

/db_xref="taxon:693998"

/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88086"

/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDTCCTD"

ORIGIN

1 tatgcctagt atgatacgta tgcttgctgc tatggttctt ggatctaagc acgttacatg
61 ttgtacagat agtgataggt tttatagact ttctaacgaa ctgctgcaag ttcttaatga
121 gggtgtgcat tctaatggag gttttatgt aaaacctggt ggactacat caggtgatgc
181 tacaactgct tatgcaaatt ctgttttaa tatctccag gcagttagct ctaacatcaa
241 caggcttct tctgttgata gtaatgtgtg taacaactg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattgt ataggtctag tgctgtcgat gacacatggt gtacagac

//

LOCUS MN312467 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 8083 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312467

VERSION MN312467

KEYWORDS .

SOURCE Bat alphacoronavirus
ORGANISM Bat alphacoronavirus
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..360
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8083"
/host="Miniopterus sp."
/db_xref="taxon:2419667"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88087"
/translation="LPNMIRMISAMILGSKHVCCTASDRYYRLCNELAQVLTEVVHS
NGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSIQRML
YDNCYRTSAVDSGLSTR"

ORIGIN

1 acttcctaat atgatacgtg tgatcagc catgattctt ggttctaac atgtaactg
61 ttgtactgcc tctgataggt attatcgctt ttgtaatgag ttggctcagg ttctactga
121 agtcgtccat tcaaatggtg gttctatat gaaacctggc ggtactactt ctggtgatgc
181 cacaacagct tatgctaatt ctgtgtttaa catttccaa gctgttagtg ccaatattaa
241 tcgtatattg ggcattaata gcaatacatg taataacctt actgttaagt ctatacagcg
301 tatgttgtag gacaattgtt atcgacttc tgctgttgac tctggctgtg cgacacgttt

//

LOCUS MN312468 339 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8086 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.
ACCESSION MN312468
VERSION MN312468
KEYWORDS .

SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 339)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 339)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..339
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8086"
/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>339
/gene="RdRp"
CDS <1..>339
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88088"
/translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
NGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQKSL
YDNCYRTSTV"

ORIGIN

1 attgcctaat atgattcgta tgatatecgc catgattttg ggttctaagc atgagaattg
61 ttgtaccaac tctgatcgtt attatagact atgcaatgag ttgctcaag tgctaactga
121 ggtagtctat tctaatggtg gtttttactt aaaaccaggt ggtacgacat cgggtgatgc
181 aacgacagct tatgccaatt ctgtgtttaa tatctttcaa gcagtcagtg ctaacattaa
241 tcgcatactg ggcgtaata gcaatacttg taataactta acagttaag atttgcagcg
301 ctggttgat gataattgtt atcgcactag cactgtaga

//

LOCUS MN312469 283 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8087 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312469

VERSION MN312469

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 283)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 283)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..283
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8087"
/host="Miniopterus sp."
/db_xref="taxon:2419667"
/country="China"
gene <1..>283
/gene="RdRp"
CDS <1..>283
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88089"
/translation="LPNMIRMISAMILGSKHVNCTASDRYYRLCNELAQVLTEVVHS
NGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLP"

ORIGIN

1 acttccta atgatacgtg tgatcagc catgattctt ggtccaaac atgttaactg
61 ttgactgcc tctgataggt attatcgctt ttgtaagag ttgctcagg ttctactga
121 agtcgtccat tcaaatggtg gttctatat gaaacctggc ggtactact ctgggtgatgc
181 cacaacagct tatgctaatt ctgtgttaa catttccaa gctgtagtg ccaatattaa
241 tcgtatatt ggcattaata gcaatacatg taataacctt cct

//

LOCUS MN312470 357 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8090 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312470

VERSION MN312470

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..357
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="8090"
 /host="Miniopterus sp."
 /db_xref="taxon:2042696"
 /country="China"
 gene <1..>357
 /gene="RdRp"
 CDS <1..>357
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88090"
 /translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
 NGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQRS
 YDNCYRTSTVDPAFVDT"

ORIGIN

1 attgcctaat atgattcgta tgatatccgc catgattttg ggttctaagc atgagaattg
 61 ttgtaccaac tctgatcggtt attatagact atgtaatgag ttagctcaag tgctaactga
 121 ggtagtctat tctaattggtg gtttttattt aaaaccaggt ggtactacat cgggtgatgc
 181 aacgacggct tatgccaact ctgtgtttaa catctttcaa gcagtcagtg ctaacattaa
 241 tcgcatattg ggcgtaata gcaatactg taataactg acagttaaag atttgcagcg
 301 ctggttgat gacaattggt atgcactag cactgtagac cctgccttg tagacac

//

LOCUS MN312471 358 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat coronavirus 1 isolate 8092 RNA-dependent RNA polymerase (RdRp)
 gene, partial cds.

ACCESSION MN312471

VERSION MN312471

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; unclassified
 Alphacoronavirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="8092"

/host="unknown"
/db_xref="taxon:2042696"
/country="China"
gene <1..>358
/gene="RdRp"
CDS <1..>358
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/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88091"
/translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDLQKSL
YDNCYRTSTVDPAFVDT"

ORIGIN

1 attgcctaat atgatccgta tgatatccgc catgatttg ggtccaagc atgagaattg
61 ttgtaccaac tctgatcgtt attatagact atgcaatgag ttagctcaag tgctaactga
121 ggtagtctat tctaattggtg gtttttatt aaaaccaggt ggtacgacat cgggtgatgc
181 aacgacggct tatgccaact ctgtgtttaa tatcttcaa gcagtcagtg ctaacattaa
241 tcgcatactg ggcgtaata gcaatacttg taataactta acagttaaag atttgcagcg
301 ctctgttgat gacaattgtt atcgactag cactgtagac cctgcctttg tagacacg

//

LOCUS MN312472 361 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 8094 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312472

VERSION MN312472

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8094"
/host="Rhinolophus sp."
/db_xref="taxon:2419667"
/country="China"
gene <1..>361
/gene="RdRp"

CDS <1..>361
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88092"
/translation="LPNMIRMISAMILGSKHTTCCNTDERYYRLCNELAQVLTEVVYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNIGVKALQRRL
YDNCYRSSSVDESLLMIL"

ORIGIN

1 attacctaac atgatccgta tgatttctgc catgatccta gggcttaagc acaccacctg
61 ctgtaacct gatgagcgtc attaccgttt gtgtaatgag ttggccaag tgcttacgga
121 agttgtgtac tctaattggcg gttttatct gaaacctggt ggtacaacat ctggtgatgc
181 gactacagca tacgccaact ctgttttaa catcttcag gctgttagtg ccaacattaa
241 tagacttttg agcatagata gtaacgtttg taataacatt ggcgtgaagg ctctacagcg
301 taggtgtac gacaactgct atagatcgtc tagttagat gactctttat tgatgatact
361 a

//

LOCUS MN312473 357 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8096 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312473

VERSION MN312473

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..357
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8096"
/host="Hipposideros armiger"
/db_xref="taxon:2419667"
/country="China"

gene <1..>357
/gene="RdRp"

CDS <1..>357
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"

/protein_id="QGA88093"
/translation="LPNMIRMISAMILGSKHVTCDDSSDKYYRLCNELAQVLTEVVYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNIGVKSLQRKL
YDCCYRSSSVDDSFVD"

ORIGIN

1 actccctaat atgattcgca tgattctgc catgatttg ggttcgaagc atgttacttg
61 ctgtgattct tctgataat attaccgtct ctgtaatgag ctcgctcaag tgttgacaga
121 agttgtatat tctaatggtg ggttttatct caagcctggt ggtaccactt ctggcgatgc
181 tacaacggct tatgctaact ctgtgtttaa tattttcaa gctgttagcg ccaatattaa
241 caggttgctt agcattgata gcaatgtgtg taataatatt ggtgttaaga gttgcagcg
301 taagctatat gattgtgtt acagatcttc ttcagtagat gattcttttg tagacag

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LOCUS MN312474 329 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8098 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312474

VERSION MN312474

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 329)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 329)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..329

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="8098"

/host="Rhinolophus affinis"

/db_xref="taxon:2419667"

/country="China"

gene <1..>329

/gene="RdRp"

CDS <1..>329

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88094"

/translation="LPNMIRMISAMILGSKHTTCNTDERYYRLCNELAQVLTEVVYS

NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNVSVKALQREM

YDNCYRS"

ORIGIN

1 attaccaac atgattcgta tgatctcagc catgattttg ggtccaac atacaacctg
61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa cttgctcaag ttttaacaga
121 gggtgtctat tccaatggcg gggtttatct aaagcctggt ggtactact ctggtgatgc
181 aacaacagca tatgcaaact ctgttttaa catcttcaa gctgtcagtg ctaacattaa
241 caggttactt tctatcgata gtaacgtgtg taataatgtt agtgtaaag ctctgcagag
301 agagatgat gacaactgtt acaggtcgt

//

LOCUS MN312475 330 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 8130 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312475

VERSION MN312475

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 330)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 330)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..330

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="8130"

/host="Hipposideros armiger"

/db_xref="taxon:2419667"

/country="China"

gene <1..>330

/gene="RdRp"

CDS <1..>330

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88095"

/translation="LPNMIRMISAMILGSKHTTCCNTDERYYRLCNELAQVLTEVVYS

NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRFLSIDSNCNNVSVKDLQREM

YDNCYRSS"

ORIGIN

1 attaccaac atgattcgta tgatctcagc catgattttg ggtccaac atacaacctg
61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa cttgctcaag ttttaacaga
121 gggtgtctat tccaatggcg gggtttatct aaagcctggt ggtactact ctggtgatgc
181 aacaacagca tatgcaaact ctgttttaa catcttcaa gctgtcagtg ctaacattaa
241 caggttctt tctattgata gtaacgtgtg taataatgtt agtgtaaag atctgcagag

301 agagatgtat gacaactggt acaggtcgtc

//

LOCUS MN312476 365 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8131 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312476

VERSION MN312476

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..365

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="8131"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>365

/gene="RdRp"

CDS <1..>365

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88096"

/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDTVVQTLQ"

ORIGIN

1 tatgcctagt atgatacgtat tgettgtctc tatggttctt ggatctaagc acgttacatg
61 ttgtacagac agtगतaggt ttacagact tctaacgaa cttgcgcaag ttctaataga
121 agttgtgcat tctaacggag gttttatgt aaaacctggt ggcactacat caggtgatgc
181 tacaactgct tatgcaaat ctgttttaa catcttcag gcagttagct ctaacattaa
241 taggettctt tctgttgata gtaatgtgtg taacaactg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattggt ataggtctag tgctgttgat gacactgttg tacagactct
361 acaac

//

LOCUS MN312477 330 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 8185 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312477

VERSION MN312477

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 330)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 330)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..330

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="8185"

/host="Asellius stoliczkanus"

/db_xref="taxon:2419667"

/country="China"

gene <1..>330

/gene="RdRp"

CDS <1..>330

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88097"

/translation="LPNMIRMISAMILGSKHTTCCNTDERYYRLCNELAQVLTEVVYS

NGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRFLSIDSNVCSNVSVKALQREM

YDNCYRSS"

ORIGIN

1 attaccaac atgattcgta tgatctcagc catgatttg ggttccaaac atacaacctg

61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa cttgctcaag tttaacaga

121 ggttgctat tcaatggcg ggtttatct aaagcctggt ggtactactt ctggtgatgc

181 aacaacagca tatgcaaact ctgttttaa catcttcaa gctgtcagtg ctaacattaa

241 caggtttctt tctatcgata gtaactgtg taatacgtt agtgtcaaag ctcttcagcg

301 agagatgat gacaactgtt acaggtcgtc

//

LOCUS MN312478 357 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8210 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312478

VERSION MN312478

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..357

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="8210"
/host="Rhinolophus sinicus"
/db_xref="taxon:693998"
/country="China"

gene <1..>357

/gene="RdRp"

CDS <1..>357

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88098"
/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSVDDTVLQT"

ORIGIN

1 tatgcctagt atgatacgca tgcttgctgc tatggttctt ggttcaaagc atgttacatg
61 ttgtacagac agtgataggt ttacagact ttctaataaa cttgcacaag ttcttaatga
121 gggtgtgcat tctaattgtg gttttatgt aaaacctggt ggactacat ctggtgatgc
181 tacgactgct tatgcgaatt ccgtttttaa catcttcag gcagtagct ctaataata
241 caggcttctt tctgtgata gcaatgtgtg taacaattg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattgt ataggtctag tgtgttgat gacactgtg tacagac

//

LOCUS MN312479 361 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8235 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312479

VERSION MN312479

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="8235"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>361

/gene="RdRp"

CDS <1..>361

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88099"

/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVVHS

NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI

YDNCYRSSAVDDTVYRLY"

ORIGIN

1 tatgcctagt atgatacgta tgettgetgc tatggttctt ggatctaagc acgttacatg
61 ttgtacagac agtgataggt ttacagact tctaacgaa cttgcgcaag ttcttaatga
121 agttgtgcat tcaacggag gttttatgt aaaacctggt ggcactacat caggtgatgc
181 tacaactgct tatgcaaatt ctgttttaa catcttcag gcagttagct ctaacattaa
241 taggettctt tctgttgata gtaatgtgtg taacaactg tatgtcaaaa agcttcagcg
301 ctctatctat gacaattgtt ataggtctag tgctgttgat gacactgtgt acagactcta
361 c

//

LOCUS MN312480 355 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8236 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312480

VERSION MN312480

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="8236"
/host="Rhinolophus sp."
/db_xref="taxon:693998"
/country="China"
gene <1..>355
/gene="RdRp"
CDS <1..>355
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88100"
/translation="MPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVIHS
NGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQRSI
YDNCYRSSAVDDNVVQ"

ORIGIN

1 tatgcctagt atgatccgca tgcctgctgc tatggttctt ggatcaaagc atgttacatg
61 ttgtacagac agtgataggt ttacagact ttctaataaa cttgcacaag ttcttaataa
121 ggttatacat tccaatggag gttttatgt aaaacccggg ggcactacat caggtgatgc
181 tacaactgct tatgcaaac ctgtctttaa tattttccag gcagttagct ctaacattaa
241 tagacttctt tctgttgata gtaatgtgtg taacaattta tatgtaaaaa agcttcagcg
301 ctctatctat gataattgtt atagatctag tgctgttgat gacaatgttg tacag

//

LOCUS MN312481 359 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate 8249 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312481

VERSION MN312481

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8249"
/host="Rhinolophus affinis"
/db_xref="taxon:2419667"
/country="China"
gene <1..>359
/gene="RdRp"
CDS <1..>359
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88101"
/translation="LPNMIRMISAMILGSKHITCCNTDERYYRLCNELAQVLTEVVYS
NGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNVSVKALQREL
YDNCYRSSGIDDSFMTS"

ORIGIN

1 attacccaac atgattcgta tgatctcagc catgattttg ggtccaac atataacctg
61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa cttgctcaag ttttaacaga
121 gggtgtctat tccaatggag gggtttattt aaaacctggt ggtactactt ctggatgagc
181 aacaacagca tatgcaaatt ctgttttaa catcttcaa gctgtcagtg ctaacattaa
241 caggttactt tcatcgata gtaacgtgtg taataatgtt agtgtaaag ctcttcagag
301 agagttgtat gacaactgtt acaggtcatc aggcatagat gatagtttta tgacaagta

//

LOCUS MN312482 361 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate 8250 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312482

VERSION MN312482

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="8250"
/host="Rhinolophus affinis"
/db_xref="taxon:2419667"

gene /country="China"
<1..>361
/gene="RdRp"
CDS <1..>361
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88102"
/translation="LPNMIRMISAMILGSKHITCCNTDERYYRLCNELAQVLTEVVYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRLLSIDSNVCNNVSVKALQREL
YDNCYRSSGIDDSFMTSI"

ORIGIN

1 attaccaac atgattegta tgatctcagc catgatttg ggtccaaac atataacctg
61 ttgtaacct gatgagcgtt attacagatt gtgtaatgaa cttgctcaag ttttaacaga
121 ggtgtctat tccaatggag ggttttattt aaaacctggt ggtactact ctggtgatgc
181 aacaacagca tatgcaaatt ctgttttaa catcttcaa gctgtcagtg ctaacattaa
241 caggttactt tctatcgata gtaacgtgtg taataatgtt agtgtcaaag ctcttcagag
301 agagttgtat gacaactgtt acaggtcatc aggcatagat gatagtttta tgacaagat
361 a

//

LOCUS MN312483 375 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8598 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312483

VERSION MN312483

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8598"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>375
/gene="RdRp"
CDS <1..>375

/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88103"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVDMF"

ORIGIN

1 aatgtgatag agctttgect aatgatgacc gtatgatatac cgccatgatt ttgggttcta
61 aacatgaaaa ttgtgtact aactctgacc gttattatag actatgtaat gagttggctc
121 aagtgctaac tgaagtggtc tattctaacg gcggttttta tttaaaacca ggtggtacga
181 catcaggtga tgcaacgaca gcttatgcca attctgtttt taacatcttt caagcagtta
241 gtgctaacat taatcgtatt ttgggcgta atagcaatac ttgcaataac ttgacagtta
301 aagagttgca acgctcattg tatgataatt gttatcgcac tagtactgtt gaccctgect
361 ttgtagacat gttta

//

LOCUS MN312484 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8601 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312484

VERSION MN312484

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8601"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>374
/gene="RdRp"

CDS <1..>374
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88104"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 aatgtgatag agctttgect aatatgattc gtatgatata cgccatgatt ttgggttcta
61 aacatgaaaa ttgtgtact aactctgacc gttattatag actatgtaat gagttggctc
121 aagtgctaac tgaagtggtc tattctaacg gcggttttta tttaaaacca ggtggtacga
181 catcaggtga tgcaacgaca gcttatgcca attctgtttt taacatcttt caagcagtta
241 gtgctaacat taatcgcatt ttgggcggtta atagcaacac ttgtaataac ttgacagtta
301 aagagttgca acgctcattg tatgacaatt gttatcgcac tagtactgtt gaccctgcct
361 ttgtagacac gttt

//

LOCUS MN312485 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8607 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312485

VERSION MN312485

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..372

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="8607"

/host="Miniopterus pusillus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>372

/gene="RdRp"

CDS <1..>372

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88105"

/translation="GWDYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL

AQVLTEVVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN

LTVKSLQRSLYDNCYRTSTVDP"

ORIGIN

1 gggtgggatt atcctaatg tgatagagca ttgctaata tgatccgtat gatatccgcc
61 atgattttgg gttctaagca tgagaattgt tgtactaact ctgaccgta ttagagacta
121 tgcaacgagt tggetcaagt gctaactgag gtggtctatt ctaatggcgg ttttatcta
181 aaaccaggtg gtacgacatc gggatgatgca acgacggcct atgccaattc agtgtttaat
241 atctttcaag cagtcagtgc taacattaat cgcattttgg gtgtaataag caatactgc
301 aataacttga cagttaaaag tttgcagcgc tctttgatg acaattgta tcgactagt
361 actgtggacc cc

//

LOCUS MN312486 373 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8611 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312486

VERSION MN312486

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="8611"

/host="Miniopterus schreibersii"

/db_xref="taxon:2042696"

/country="China"

gene <1..>373

/gene="RdRp"

CDS <1..>373

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88106"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKEL

QRSLYDNCYRTSTVDPAFVDMF"

ORIGIN

1 tgtgatagag ctttgctaa tatgattcgt atgatatccg ccatgatttt gggttctaaa
61 catgaaaatt gttgactaa ctctgaccgt tattatagac tatgtaata gttggetcaa
121 gtgctaactg aagtggctta ttctaacggc gggttttatt taaaaccagg tggtagaca
181 tcaggtgatg caacgacagc ttatgccaat tctgtttta acatctttca agcagtagt

241 gctaacatta atcgtatttt gggcgtaaat agtaatactt gcaataactt gacagttaa
301 gagttgcaac gctcattgta tgataattgt tatcgcacta gtactgttga ccctgcctt
361 gtagacatgt tta

//

LOCUS MN312487 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8613 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312487

VERSION MN312487

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8613"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>370

/gene="RdRp"

CDS <1..>370

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88107"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttattataga ctatgtaacg agttggctca
121 agtgctaact gagtagtct attctaattg cggttttac taaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgcca ttcagtgtt aatatcttc aagcagtcag
241 tgctaacatt aatgcattt tggcggttaa tagcaatact tgtaataact tgacagttaa
301 aagtttgag cgctcttgt atgacaattg ttatgcact agtactgtgg accctgcctt
361 ttagacaca

//

LOCUS MN312488 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8614 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312488

VERSION MN312488

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8614"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>370

/gene="RdRp"

CDS <1..>370

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88108"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgatt tgggttctaa
61 gcatgagaat tgttgtaact actctgaccg ttattataga ctatgcaacg agttggctca
121 agtgctaacc gaggtagtct attctaatgg cggttttat ctaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgcca ttcagtgtt aatatcttc aagcagtcag
241 tgtaacatt aatgcgatt tgggcgttaa cagcaatact tgaataact tgacagtaa
301 aagtttgag cgctcttgt atgacaattg ttatgcact agtactgtgg accctgcctt
361 tgtagacaca

//

LOCUS MN312489 371 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8615 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312489

VERSION MN312489

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..371

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="8615"

/host="Miniopterus pusillus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>371

/gene="RdRp"

CDS <1..>371

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88109"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL

QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aatgtgatag agcattgcct aatgatgcc gtatgatc cgccatgatt ttgggttcta

61 agcatgagaa ttgtgtact aactctgacc gttactatag actatgtaac gagttggctc

121 aagtgctaac cgaggtagtc tattctaata gttgtttta ttaaaacca ggtggtacga

181 catcgggtga tgcaacgacg gcttatgcca atcagtggt taacatctt caagcagtc

241 gtgtaacat taatgcatt ttggcggtta atagaatac ttgtaataac ttaacagtta

301 aaagtttgc gcgctcttg tatgacaatt gttatgcac tagtactgtg gaccctgcct

361 ttgtagacac a

//

LOCUS MN312490 370 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8617 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312490

VERSION MN312490

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="8617"

/host="Miniopterus pusillus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>370

/gene="RdRp"

CDS <1..>370

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88110"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL

QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgatt tgggttctaa
61 gcatgagaat tgttgtaact actctgaccg ttattataga ctatgtaacg agttggctca
121 agtgctaact gaagtagtct attctaattg tgggttttac ctaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgccaa ttcagtgtt aatatcttc aagcagtcag
241 tgctaacatt aatgcgatt tgggcgtaa tagcaatact tgcaataact tgacagtaa
301 aagttgcag cgctcttgt atgacaattg ttatgcact agtactgtag accctgcctt
361 ttagacaca

//

LOCUS MN312491 368 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8618 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312491

VERSION MN312491

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8618"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>368
/gene="RdRp"
CDS <1..>368
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88111"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVD"

ORIGIN

1 atgtgataga gctttgcta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 acatgaaat tgttgtaact actctgaccg ttattataga ctatgtaatg agttggctca
121 agtgctaact gaagtggctct attctaacgg cggttttat ttaaaccag gtggtacgac
181 atcaggtgat gcaacgacag cttatgcaa ttctgtttt aacatcttc aagcagtag
241 tgtaacatt aatcgattt tgggcgtaa tagcaatact tgcaataact tgacagtaa
301 agagttgcaa cgctcattg atgataattg tttatgcact agtactgttg accctgcctt
361 ttagaca

//

LOCUS MN312492 369 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8619 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.

ACCESSION MN312492

VERSION MN312492

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..369

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="8619"

/host="Miniopterus pusillus"

/db_xref="taxon:2042696"

/country="China"

gene <1..>369

/gene="RdRp"

CDS <1..>369

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88112"

/translation="GWDYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNEL

AQVLTEVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNN

LTVKSLQRSLYDNCYRTSTV"

ORIGIN

1 tgggtgggat taccctaaat gtgatagagc attgcctaat atgatccgta tgatatccgc
61 catgattttg ggttctaagc atgagaattg ttgtactaac tctgaccgtt actatagact
121 atgtaacgag ttgctcaag tgctaaccga ggtagtctat tctaattggcg gttttattt
181 aaaaccaggt ggtacgacgt cgggtgatgc aacgacggct tatgccaatt cagtgtttaa
241 catctttcaa gcagttagt ctaacattaa tcgcattttg ggcgtaata gcaatacttg
301 caataactta acagttaaaa gtttcgacgc ctctttgat gacaattgtt atcgactag
361 tactgtgga

//

LOCUS MN312493 370 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8620 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312493

VERSION MN312493

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8620"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88113"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gctttgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 acacgaaaat tgttgacta actctgaccg ttattataga ctatgtaatg agttggctca
121 agtgctaact gaagtggctc attctaacgg cggttttat taaaaccag gtggtacgac
181 atcaggtgat gcaacgacag cttatgcaa ttctgtttt aatatcttc aagcagttag
241 tgctaacatt aatgcattt tgggcgttaa tagcaacact tgtaataact tgacagtaa
301 agagttgcaa cgctcattg atgacaattg ttatgcact agtactgttg accctgcctt
361 tgtagacacg

//

LOCUS MN312494 375 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8621 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312494

VERSION MN312494

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8621"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>375
/gene="RdRp"
CDS <1..>375
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88114"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKEL
QRSLYDNCYRTSTVDPAFVDTF"

ORIGIN

1 aatgtgatag agctttgect aatatgattc gtatgatatc cgccatgatt ttgggttcta
61 agcatgaaa ttgtgtact aactctgacc gttattatag attatgtaac gagttggcac
121 aagtgctaac tgaagtggtc tattctaacg gcggttttta tttaaaccac ggtggtacga
181 catcaggtga tgcaacgaca gcttatgcca attctgtttt taatatcttt caagcagtca
241 gtgctaacat taatcgcatt ttgggcgta acagcaatac ttgcaataac ttgacagtta
301 aagagttgca acgctcattg tatgacaatt gttatcgcac tagtactgtt gaccctgcct
361 ttgtagacac gtttt

//

LOCUS MN312495 351 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8622 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312495

VERSION MN312495

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..351
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8622"

/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>351
/gene="RdRp"
CDS <1..>351
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88115"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTV"

ORIGIN

1 atgtgataga gctttgcta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 acacgaaaat tgtgtacta actctgaccg ttattataga ctatgtaatg agttggctca
121 agtgctaact gaagtggctc attctaacgg cggttttat ttaaaccag gtggtacgac
181 atcaggtgat gcaacgacag cttatgcaa ttctgtttt aatatcttc aagcagttag
241 tgctaacatt aatgcattt tgggcgtaa tagcaacact tgtaataact tgacagtaa
301 agagttgcaa cgctcattg atgacaattg ttatgcact agtactgttg a

//

LOCUS MN312496 351 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8623 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312496

VERSION MN312496

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..351
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8623"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>351
/gene="RdRp"

CDS <1..>351
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88116"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKEL
QRSLYDNCYRTSTV"

ORIGIN

1 atgtgataga gctttgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgaaaat tgttgacta actctgaccg ttattataga ttatgtaacg agttggcaca
121 agtgctaact gaagtgtct attctaacgg cggttttat taaaaccag gtggtacgac
181 atcaggtgat gcaacgacag cttatgccaa ttctgtttt aatatctttc aagcagtcag
241 tgctaacatt aatcgattt tgggcggtta cagcaatact tgcaataact tgacagtaa
301 agagttgcaa cgctcattgt atgacaattg ttatcgcaact agtactgttg a

//

LOCUS MN312497 351 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8624 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312497

VERSION MN312497

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..351
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8624"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>351
/gene="RdRp"

CDS <1..>351
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88117"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTV"

ORIGIN

1 atgtgataga gctttgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgaaaat tgttgacta actctgaccg ttattataga ttatgtaacg agttggcaca
121 agtgetaact gaagtgtct attctaacgg cggttttat ttaaaccag gtggtacgac
181 atcagtgat gcaacgacag cttatgccaa ttctgtttt aatatcttcc aagcagtcag
241 tgctaacatt aatcgattt tgggcggtta cagcaatact tgcaataact tgacagttaa
301 agagttgcaa cgctcattg atgacaattg ttatcgact agtactgttg a

//

LOCUS MN312498 368 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8638 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312498

VERSION MN312498

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8638"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>368

/gene="RdRp"

CDS <1..>368

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88118"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVD"

ORIGIN

1 atgtgataga gctttgccta atatgattcg tatgatatcc gccatgattt tgggttctaa

61 acatgaaaat tgtgtacta actctgaccg ttattataga ctatgtaatg agttggctca
121 agtgctaact gaagtggctct attctaacgg cggttttat ttaaaccag gtggtacgac
181 atcaggtgat gcaacgacag cttatgcaa ttctgtttt aacatcttc aagcagtag
241 tgtaacatt aatcgtatt tgggcgtaa tagcaatact tgcaataact tgacagtaa
301 agagttgcaa cgctcattgt atgataattg ttatgcact agtactgttg accctgcctt
361 ttagaca

//

LOCUS MN312499 351 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8639 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312499

VERSION MN312499

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 351)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..351

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8639"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>351

/gene="RdRp"

CDS <1..>351

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88119"

/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE

VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKSL

QRSLYDNCYRTSTV"

ORIGIN

1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgatt tgggttctaa

61 gcatgagaat tgtgtacta actctgaccg ttattataga ctatgcaacg agttggctca

121 agtgtaacc gaggtggctct attctaattg cggttttac ctaaaccag gtggtacgac

181 atcgggtgat gcaacgacgg cttatgcaa ttactgttt aatatcttc aagcagtag

241 tgtaacatt aatcgcatt tgggcgtaa tagcaatact tgcaataact tgacagtaa

301 aagtttgacg cgctcttgt atgacaattg ttatgcact agtactgtag a
//
LOCUS MN312500 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8641 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.
ACCESSION MN312500
VERSION MN312500
KEYWORDS .
SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 370)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 370)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..370
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8641"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88120"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"
ORIGIN
1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgattt tgggttctaa
61 gcatgagaat tgttgacta actctgaccg ttattataga ctatgtaacg agttggctca
121 agtgetaact gagtggtct attctaattg cggttttac ctaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgcaa ttacgtgttt aatatcttc aagcagtcag
241 tgctaacatt aatcgattt tgggcgtaa tagcaacact tgtaataact tgacagtaa
301 aagtttgacg cgctcttgt atgacaactg ttatgcact agtactgtgg accctgcctt
361 ttagacaca
//
LOCUS MN312501 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8646 RNA-dependent RNA polymerase (RdRp)

gene, partial cds.
 ACCESSION MN312501
 VERSION MN312501
 KEYWORDS .
 SOURCE Bat coronavirus 1
 ORGANISM Bat coronavirus 1
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; unclassified
 Alphacoronavirus.
 REFERENCE 1 (bases 1 to 370)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 370)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
 FEATURES Location/Qualifiers
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 /mol_type="genomic RNA"
 /isolate="8646"
 /host="Miniopterus pusillus"
 /db_xref="taxon:2042696"
 /country="China"
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 /gene="RdRp"
 CDS <1..>370
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88121"
 /translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
 VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
 QRSLYDNCYRTSTVDPAFVDT"
 ORIGIN
 1 atgtgataga gcatgccta atatgattcg tatgatatcc gccatgatt tgggttctaa
 61 gcatgagaat tgtgtacta actctgaccg ttattataga ctatgcaacg agttggctca
 121 agtgctaact gagtagtct attctaagg cggttttat ctaaaccag gtggtacgac
 181 atcgggtgat gcaacgacg cttatgcaa ttacgtgitt aatattttc aagcagttag
 241 tgtaacatt aatcgattt tgggcgtaa tagcaacact tgtaataact tgacagtaa
 301 aagtttgag cgctcttgt atgacaattg ttatcgact agtactgtgg accctgcctt
 361 ttagacaca
 //
 LOCUS MN312502 370 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat coronavirus 1 isolate 8651 RNA-dependent RNA polymerase (RdRp)
 gene, partial cds.
 ACCESSION MN312502
 VERSION MN312502
 KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8651"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>370

/gene="RdRp"

CDS <1..>370

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88122"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgatt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttattataga ctatgcaacg agttggctca
121 agtgetaact gagtggtct attctaattg cggttttac ctaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgcaa ttacgtgttt aatatcttc aagcagtcag
241 tgctaacatt aatgcattt tgggcgtaa tagcaatact tgaataact tgacagtaa
301 aagtttcag cgctcttgt atgacaattg ttatgcact agtactgtgg accctgcctt
361 ttagacaca

//

LOCUS MN312503 365 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate 8653 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312503

VERSION MN312503

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..365
/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="8653"
/host="Miniopterus sp."
/db_xref="taxon:694001"
/country="China"
gene <1..>365
/gene="RdRp"
CDS <1..>365
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88123"
/translation="GWDYPKCDRALPNMIRMISAMILGSKHVNCTNSDRYYRLCNEL
AQVLTEVVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNN
LTVKSLQRMLYDNCYRSSA"

ORIGIN

1 tgggtgggat tacctaaat gtgatcgtgc attgcctaac atgattcgta tgattctgc
61 tatgatttg ggtcctaagc atgtaattg ttgtaccaat tcagatcgtt attatagact
121 ttgtaatgaa cttgcacaag ttctactga ggtggtctat tctaacgggg gtttctatat
181 gaagcctggg ggtactactt ctggtgatgc cactactgcc tatgctaatt ctgtttcaa
241 catattccag gctgtagtg ctaataataa taggatttg ggtattaata gtaatacctg
301 taataatctt actgtaagt cactcagcg catgctttat gacaattgt atagaagtc
361 tgccg

//

LOCUS MN312504 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8654 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312504

VERSION MN312504

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 370)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..370
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8654"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88124"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKEL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gctttgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgaaaat tgtgtacta actctgaccg ttattataga ttatgtaacg agttggcaca
121 agtgtaact gaagtgtct attctaaccg cggttttat taaaaccag gtggtacgac
181 atcagtgat gcaacgacg cttatgcca ttctgtttt aatatcttc aagcagtcag
241 tgtaacatt aatgcattt tgggcgtaa cagcaatact tgcaataact tgacagtaa
301 agagttgcaa cgctcattg atgacaattg tcatgcact agtactgtg acctgcctt
361 tgtagacag

//

LOCUS MN312505 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8658 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312505

VERSION MN312505

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..372
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8658"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>372
/gene="RdRp"
CDS <1..>372
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88125"
/translation="KCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLT
EVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKS
LQRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 aaatgtgata gagcattgcc taatatgatt cgtatgatat cgcctatgat tttgggttct
61 aagcatgaga attgtgttac taactctgac cgttattata gactatgtaa cgagttggct
121 caagtgctaa ccgaggtagt ctattctaatt ggcggttttt atttaaacc aggtggtacg
181 acatcggggtg atgcaacgac ggcttatgcc aattcagtgt ttaatattct tcaagcagtc
241 agtgetaaca ttaatcgcat tttgggcgtt aatagcaata cttgcaataa cttgacagtt
301 aaaagtttgc agcgcctttt gtatgacaat tgttatcgca ctagtactgt ggaccccgcc
361 ttttagaca ca

//

LOCUS MN312506 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8663 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312506

VERSION MN312506

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..370
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="8663"
 /host="Miniopterus pusillus"
 /db_xref="taxon:2042696"
 /country="China"
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 /gene="RdRp"
 CDS <1..>370
 /gene="RdRp"
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 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88126"
 /translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
 VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
 QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcattgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
 61 gcatgagaat tgtgtacta actctgaccg ttattataga ctatgtaacg agttggctca
 121 agtgctaact gaggtagtct attctaattg cggtttttac taaaaccag gtggtacgac
 181 gtcgggtgat gcaacgacgg cttatccaa ttcagtgttt aacatttttc aagcagtcag
 241 tgtaacatt aatcgattt tgggcgtaa tagcaatact tgcaataact taacagtaa
 301 aagtttgacg cgctcttgt atgacaattg ttatcgact agtactgtgg accctgcctt
 361 tgtagacaca

//

LOCUS MN312507 393 bp RNA linear VRL 07-NOV-2019
 DEFINITION Miniopterus bat coronavirus HKU8 isolate 8665-1 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312507

VERSION MN312507

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..393
 /organism="Miniopterus bat coronavirus HKU8"
 /mol_type="genomic RNA"
 /isolate="8665-1"

/host="Miniopterus fuliginosus"
/db_xref="taxon:694001"
/country="China"
gene <1..>393
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CDS <1..>393
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88127"
/translation="RALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLAVKSLQR
MLYDNCYRSSAVDPGFVDTFYGYLRKHFS"

ORIGIN

1 ccgTgcattg cccaacatga ttcgtatgat ttctgctatg atttggggtt ctaagcatgt
61 taactgttgt accaattcag atcgttatta tagactctgt aatgagcttg cacaagttct
121 tactgaagt gtctattcta atggcgggtt ctatatgaaa cctggcggta ctacatctgg
181 tgacgccact acggcctatg ctaattctgt ctcaacata ttccaggctg ttagtgctaa
241 tattaacagg atttgggta ttaatagtaa tacctgtaat aatcttgctg ttaagtcctt
301 acagegtatg ctttatgaca attgttatag aagttctgct gttgaccctg gttttgtga
361 tacttttac ggctacttgc ggaagcactt ctc

//

LOCUS MN312508 434 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8665-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312508

VERSION MN312508

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 434)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 434)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..434
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/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>434

CDS /gene="RdRp"
 <1..>434
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88128"
 /translation="DYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQ
 VLTEVVYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLLT
 VKSLQRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMIQLMM"

ORIGIN
 1 gattacccta aatgtgatag agcattgcct aatatgattc gtatgatttc tgccatgatt
 61 ttgggttcta agcatgagaa ttgtgtact aactctgacc gttactatag actatgcaac
 121 gagttggctc aagtgctaac tgaggtggc tattctaag gcggtttta tctaaaacca
 181 ggtggtacga catcgggtga tgcaacgac gcttatgcca attcagtgtt taatatctt
 241 caagcagta gtgctaacat taatcgatt ttggcggtta atagcaatac ttgcaataac
 301 ttgacagta aaagtttga gcgctcttg tatgacaatt gttatcgac tagtactgtg
 361 gacctgect tttagacac atttatggt tacttacgca aacattctc tatgatgatt
 421 caactgatga tgga

//

LOCUS MN312509 370 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat coronavirus 1 isolate 8667 RNA-dependent RNA polymerase (RdRp)
 gene, partial cds.
 ACCESSION MN312509
 VERSION MN312509
 KEYWORDS .
 SOURCE Bat coronavirus 1
 ORGANISM Bat coronavirus 1
 Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; unclassified
 Alphacoronavirus.

REFERENCE 1 (bases 1 to 370)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..370
 /organism="Bat coronavirus 1"
 /mol_type="genomic RNA"
 /isolate="8667"
 /host="Miniopterus pusillus"
 /db_xref="taxon:2042696"
 /country="China"
 gene <1..>370
 /gene="RdRp"
 CDS <1..>370
 /gene="RdRp"

/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88129"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
QRSLYDNCYRTSTVDPAFVDT"

ORIGIN

1 atgtgataga gcaatgccta atatgattcg tatgatatcc gccatgattt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttactataga ctatgcaacg agttggctca
121 agtgctaact gaggtggtct attctaattg cggtttttat ctaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgccaa ttcagtgttt aatatcttc aagcagtcag
241 tgtaacatt aatcgcattt tgggcgtaa tagcaatact tgcaataact tgacagtaa
301 aagtttgag cgctcttgt atgacaattg ttatcgcaact agtactgtgg accctgcctt
361 ttagacaca

//

LOCUS MN312510 355 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 8670 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312510

VERSION MN312510

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="8670"
/host="Miniopterus pusillus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>355

/gene="RdRp"

CDS <1..>355

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88130"

/translation="DYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQ

VLTEVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLT
VKSLQRSLYDNCYRTS"

ORIGIN

1 tgattacca aaatgtgata gagcattgcc taatatgac cgtatgat cgcctatgat
61 tttgggttct aagcatgaga attgtgtac taactctgac cgtattata gactatgcaa
121 cgagttggct caagtgctaa ctgaggtggt ctattctaat ggcggtttt acctaaaacc
181 aggtggtagc acatcgggtg atgcaacgac ggcttatgcc aattcagtgt ttaatatctt
241 tcaagcagtc agtgtaaca ttaatcgcat tttgggcgtt aatagcaata cttgcaataa
301 cttgacggtt aaaagttgc agcgcctctt gtatgacaat tgtatcgca ctagt

//

LOCUS MN312511 417 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate 8680-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312511

VERSION MN312511

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 417)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 417)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..417

/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="8680-1"
/host="Miniopterus schreibersii"
/db_xref="taxon:694001"
/country="China"

gene <1..>417
/gene="RdRp"

CDS <1..>417
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88131"
/translation="GWDYPKCDRALPNMIRMISAMILGSKHVCCTNSDRYYRLCNEL
AQVLTEVVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNN
LTVKSLQRMLYDNCYRSSAVDPGFVDTFYGYLRKHFS"

ORIGIN

1 tggttgggat taccaaagt gtgatcgtgc attgcctaac atgattcgta tgattctgc
61 tatgatttg ggtctaagc atgtaattg ttgtaccaat tcagatcgtt attatagact
121 ttgtaatgaa cttgcacaag ttctactga ggtggtctat tctaacgggg gtttctatat

181 gaagcctggt ggtactact ctggtgatgc cactactgcc tatgctaatt ctgtttcaa
241 catattccag gctgtagtg ctaatattaa taggatttg ggtattaata gtaatacctg
301 taataatctt actgtaagt cactcagcg catgctctat gacaattggt atagaagttc
361 tgccgtgat cctggtttg ttgatacgtt ttatggctac ttgcgtaagc atttctc

//

LOCUS MN312512 410 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate 8680-2 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312512

VERSION MN312512

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..410

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="8680-2"

/host="Miniopterus schreibersii"

/db_xref="taxon:2042696"

/country="China"

gene <1..>410

/gene="RdRp"

CDS <1..>410

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88132"

/translation="DYPKCDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQ

VLTEVVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNFLT

VKELQRSLYDNCYRTSTVDPAFVDTFYGYLRKHFS"

ORIGIN

1 gattatcaa agtgtgacag agctttgctt aatatgattc gtatgatc cgccatgatt

61 ttgggttcta agcatgaaaa ttgtgtact aactctgacc gttattatag attatgtaac

121 gagttggcac aagtgctaac tgaagtggc tattctaacg gcggtttta tttaaacca

181 ggtggtacga catcaggtga tgcaacgaca gcttatgcca attctgttt taatatctt

241 caagcagta gtgctaacat taatgcatt ttggcggtta acagcaatac ttgcaataac

301 ttgacagta aagagttgca acgctcattg tatgacaatt gttatgcac tagtactgtt

361 gaccctgct tttagacac gttttatggt tactacgca aacatttctc

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LOCUS   MN312513           370 bp  RNA   linear  VRL 07-NOV-2019
DEFINITION  Bat coronavirus 1 isolate 8681 RNA-dependent RNA polymerase (RdRp)
           gene, partial cds.
ACCESSION  MN312513
VERSION    MN312513
KEYWORDS   .
SOURCE     Bat coronavirus 1
ORGANISM   Bat coronavirus 1
           Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
           Orthocoronavirinae; Alphacoronavirus; unclassified
           Alphacoronavirus.
REFERENCE  1 (bases 1 to 370)
AUTHORS    Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
           Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE      Origin and cross-species transmission of bat coronaviruses in China
JOURNAL    Unpublished
REFERENCE  2 (bases 1 to 370)
AUTHORS    Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
           Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE      Direct Submission
JOURNAL    Submitted (13-AUG-2019) Key laboratory of special pathogens and
           biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
           Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES   Location/Qualifiers
   source   1..370
            /organism="Bat coronavirus 1"
            /mol_type="genomic RNA"
            /isolate="8681"
            /host="Miniopterus pusillus"
            /db_xref="taxon:2042696"
            /country="China"
   gene     <1..>370
            /gene="RdRp"
   CDS      <1..>370
            /gene="RdRp"
            /codon_start=2
            /product="RNA-dependent RNA polymerase"
            /protein_id="QGA88133"
            /translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
            VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSL
            QRSLYDNCYRTSTVDPAFVDT"
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ORIGIN

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1 atgtgataga gcattgccta atatgatccg tatgatatcc gccatgattt tgggttctaa
61 gcatgagaat tgtgtacta actctgaccg ttattataga ctatgcaacg agttggctca
121 agtgctaacc gaggtgtct attctaattg cggttttac ctaaaccag gtggtacgac
181 atcgggtgat gcaacgacgg cttatgcca ttcagtgtt aatatcttc aagcagtcag
241 tgtaacatt aatcgattt tgggcgtaa tagcaatact tgcaataact tgacagtaa
301 aagttgcag cgctcttgt atgacaattg ttatcgact agtactgtgg accctgcctt
361 tgtagacaca
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```
//
LOCUS   MN312514           284 bp  RNA   linear  VRL 07-NOV-2019
DEFINITION  Bat alphacoronavirus isolate 8717 RNA-dependent RNA polymerase
           (RdRp) gene, partial cds.
```

ACCESSION MN312514

VERSION MN312514

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 284)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 284)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..284

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="8717"

/host="Myotis sp."

/db_xref="taxon:2419667"

/country="China"

gene <1..>284

/gene="RdRp"

CDS <1..>284

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88134"

/translation="CDRALPNMLRMISAMILGSKHVTCNASDRYYRLCNELAQVLTE

VIYSNGGFYVKPGGTTSGDASTAYANSVFNIFQSVSANVNRLLSVDSTVT"

ORIGIN

1 tgtgatagag cttgcttaa tatgcttaga atgattctg ctatgatact tggctctaaa

61 catgttacat gctgtaatgc tagtgataga tattacagac tatgtaacga acttgctcaa

121 gtgtaacag aagttatna ttctaattgt ggattttatg ttaaccagg tggtaaccaca

181 tctggtgatg catccactgc ttatgctaac tctgtcttta atatattca gtctgtaagt

241 gctaattgta atagattgct aagtgttgat agtaaacactg taac

//

LOCUS MN312515 368 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8777 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312515

VERSION MN312515

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="8777"
/host="Rhinolophus sinicus"
/db_xref="taxon:693998"
/country="China"
gene <1..>368
/gene="RdRp"
CDS <1..>368
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88135"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVT"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgcttgctg ctatggttct tggatcaaag
61 catgttcatc gctgtacaga cagtgatagg tttacagac ttccaatga acttgcaaca
121 gttctaatg aagttgtgca ttctaatggc gggttttatg taaaccagg tggcaccaca
181 tcaggcgatg ctacaactgc gtatgcaaat tctgtcttca acatctttca ggcagttagc
241 tctaatatta ataggcttct ttctgttgat agtaatgtgt gtaacaatct gtatgtcaag
301 aagcttcagc gtctatctca tgacaattgt tatagatcta gtgctgttga tgacaatgtt
361 gttacaga

//

LOCUS MN312516 368 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate 8798 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312516

VERSION MN312516

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="8798"
/host="Rhinolophus pusillus"
/db_xref="taxon:693998"
/country="China"
gene <1..>368
/gene="RdRp"
CDS <1..>368
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88136"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLANELAQVLNE
VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNVNRLLSVDSNVCSNLYVKKL
QRDIYDNCYRSSAVDDGVYG"

ORIGIN

1 aatgtgatag agctatgcct agtatgatac gtatgttggc agctatggtt ctggctcta
61 agcatgtaac ttgtgcaca gatagtgata ggttttacag actagctaag gagttggcac
121 aagttcttaa tgaagtgtg cattctaag gcggtttta tgttaacct ggtggtacta
181 ctctgtgga tgcaacaact gcgatgcca attcagttt taatatttc caggctgta
241 gctctaagt taataggctt ttgtctgctg atagtaatgt ctgtagtaac ctatatgtca
301 aaaagctgca gcgtgatata tatgacaatt gttatagata tagtgcagtt gatgatggtg
361 tgtacgga

//

LOCUS MN312517 393 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 8867 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312517

VERSION MN312517

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..393
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="8867"
/host="Vespertilio sinensis"
/db_xref="taxon:393045"
/country="China"
gene <1..>393
/gene="RdRp"
CDS <1..>393
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88137"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVI
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSSVDASFVDEYFGYLRKHFS"

ORIGIN

1 tagagcatta cctaataatga ttagaatgat ttccgcgatg attttgggtt ctaagcacgt
61 cacgtgctgt actgctagt acaggtttta tagactctgt aatgagttgg cccaagtttt
121 aacagaggtt atctattcta atggtgggtt ctacctaaa cctggtggtta ccacttctgg
181 tgatgctact actgcatacg ccaattctgt cttaacatt ttcaggcag ttagtgctaa
241 tgcaacagg ttgcttggtg ttgatagcaa cacatgcaac aatcttgaag tcaagcaatt
301 acagcgtgaa ctttatgatt gctgctacag atcatctagt gttgatgcta gttttgtgga
361 tgagtatttt ggctatctac gtaagcattt ttc

//

LOCUS MN312518 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 8939 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312518

VERSION MN312518

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="8939"
/host="Vespertilio sinensis"
/db_xref="taxon:393045"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88138"
/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS
NGGFYLPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQRKL
YDCCYRSSSVDASFVDE"

ORIGIN

1 attacctaat atgattagaa tgattccgc tatgatttg ggttctaagc acgtcacgtg
61 ctgtactgct agtgacaggt tttatagact ctgtaatgag ttggccaag tttaacaga
121 gggtatctat tctaattggt gtttctacct taaacctggt ggtaccactt ctggtgatgc
181 tactactgca tacgccaatt ctgtcttaa cattttcag gcagttagtg ctaatgcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtaagc aattacagcg
301 taagcttat gattgctgct acagatcadc tagtgttgat gccagtttg tggatgagta

//

LOCUS MN312519 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 8948 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312519

VERSION MN312519

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359
/organism="Bat coronavirus HKU6"
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/db_xref="taxon:393045"
/country="China"
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CDS <1..>359
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ORIGIN

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241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtcaagc aattacagcg
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LOCUS MN312520 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9130 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312520

VERSION MN312520

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
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/mol_type="genomic RNA"
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/host="Myotis ricketti"
/db_xref="taxon:393045"
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gene <1..>360
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CDS <1..>360

/gene="RdRp"
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ORIGIN

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301 taagctctat gattgctgct acaggtcatc taatgttgat gccagtttg tagatgagta

//

LOCUS MN312521 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9132 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312521

VERSION MN312521

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

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/mol_type="genomic RNA"
/isolate="9132"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

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/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

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ORIGIN

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241 taggttgctt ggtgttgata gcaacacatg caacaaccta gaggtcaage aattacagcg
301 taagctttat gattgctgct acaggatcgc taatgttgat gccagtttcg tagatgagta

//

LOCUS MN312522 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9134 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312522

VERSION MN312522

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9134"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>387

/gene="RdRp"

CDS <1..>387

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88142"

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ORIGIN

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361 ttttggttat ctacgtaagc attttc

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LOCUS MN312523 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9137-1 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312523

VERSION MN312523

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/isolate="9137-1"
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/country="China"

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CDS <1..>387
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ORIGIN

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361 ttttggttat ctacgtaagc attttc
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LOCUS MN312524 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9137-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312524
VERSION MN312524
KEYWORDS .
SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 387)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 387)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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361 ttttggttat ctacgtaagc attttc
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LOCUS MN312525 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9145 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.
ACCESSION MN312525
VERSION MN312525
KEYWORDS .
SOURCE Bat coronavirus HKU6
ORGANISM Bat coronavirus HKU6
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.
REFERENCE 1 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 360)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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/db_xref="taxon:393045"
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CDS <1..>360
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/protein_id="QGA88145"
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YDCCYRSSNVDASFVDE"

ORIGIN

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LOCUS MN312526 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9146 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312526

VERSION MN312526

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

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/country="China"

gene <1..>360

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CDS <1..>360

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/protein_id="QGA88146"

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YDCCYRSSNVDASFVDE"

ORIGIN

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LOCUS MN312527 335 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 9151 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312527

VERSION MN312527

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 335)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 335)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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/country="China"
gene <1..>335
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CDS <1..>335
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/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88147"
/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTEVIYS
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YDCCYRSSN"

ORIGIN

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LOCUS MN312528 338 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9154 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312528

VERSION MN312528

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 338)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 338)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/isolate="9154"

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CDS <1..>338

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/codon_start=2

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ORIGIN

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LOCUS MN312529 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 9156 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312529

VERSION MN312529

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9156"
/host="unknown"
/db_xref="taxon:393045"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
/gene="RdRp"
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/protein_id="QGA88149"
/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQRKL
YDCCYRSSSVDASVDE"

ORIGIN

1 attacctaat atgattagaa tgattccgc tatgatcttg ggttctaagc acgtcacatg
61 ctgtactgct agtgacaggt tttatagact ctgtaatgag ttggccaag tcttaacaga
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181 tactactgca tacccaatt ctgtctttaa cattttcag gcagttagtg ctaatgtaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtaagc aattacagcg
301 taagctttat gattgctgct acagatcatc tagtgttgat gctagtttg tggatgagta

//

LOCUS MN312530 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9161 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312530

VERSION MN312530

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"

/isolate="9161"
/host="Myotis chinensis"
/db_xref="taxon:393045"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
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YDCCYRSSVVDASFVDE"

ORIGIN

1 attaccta atgattagaa tgattccgc tatgatttg ggttctaage acgtcacgtg
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181 tactactgca tacgccaatt ctgtctttaa cattttcag gcagttagtg ctaatgcaa
241 caggttgctt ggtgttgata gcaacacatg caacaatctt gaagtcaage aattacagcg
301 taagcttat gattgctct acagatcatc tagtgtgat gctagtgttg tggatgagta

//

LOCUS MN312531 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9164 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312531

VERSION MN312531

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9164"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>360

CDS /gene="RdRp"
<1..>360
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88151"
/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLCNELAQVLTEVIYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQRKL
YDCCYRSSSVDASFVDE"

ORIGIN

1 attacctaat atgattagaa tgattccgc tatgatttg ggttctaagc acgtcacgtg
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121 gggtatctat tctaattggt gtttctacct taaacctggt ggtaccactt ctggtgatgc
181 tactactgca tacgccaatt ctgtcttaa cattttcag gcagtagtg ctaatgcaa
241 caggttgctt ggtgtgata gcaacacatg caacaatctt gaagtaagc aattacagcg
301 taagcttat gattgctgct acagatcatc tagtgttgat gctagtttg tggatgagta

//

LOCUS MN312532 366 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 9167 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312532

VERSION MN312532

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..366
/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9167"
/host="Myotis chinensis"
/db_xref="taxon:393045"
/country="China"

gene <1..>366
/gene="RdRp"

CDS <1..>366
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"

/protein_id="QGA88152"
/translation="RALPNMIRMISAMILGSKHVCCTASDRFYRLSNELAQVLTEVI
YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR
KLYDCCYRSSNVDASFVDE"

ORIGIN

1 tagggcattg cctaataatga ttagaatgat ttccgctatg atttggggtt ctaagcatgt
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121 aacggaggtt atctattcta atgggtggtt ttacctcaaa cctggaggta caacctctgg
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241 tgtaatagg ttgcttggtg ttgatagcaa cacatgcaac aacctagagg tcaagcaatt
301 acagcgtaag ctttatgatt gctgctacag gtcattcaat gttgatgcca gtttcgtaga
361 tgagta

//

LOCUS MN312533 366 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9170 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312533

VERSION MN312533

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..366

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="9170"

/host="Myotis chinensis"

/db_xref="taxon:393045"

/country="China"

gene <1..>366

/gene="RdRp"

CDS <1..>366

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88153"

/translation="RALPNMIRMISAMILGSKHVCCTASDRFYRLSNELAQVLTEVI

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KLYDCCYRSSNVDASFVDE"

ORIGIN

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241 tgcaatagg ttgcttggtg ttgatagcaa cacatgcaac aacctagaag tcaagcaatt
301 acagcgaag cttatgatt gctgctacag gtcactaat gttgatgcca gtttcgtaga
361 ttagta

//

LOCUS MN312534 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate 9172 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312534

VERSION MN312534

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="9172"

/host="Myotis ricketti"

/db_xref="taxon:393045"

/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88154"

/translation="LPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTEVVYS

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YDCCYRSSDVDASFVDE"

ORIGIN

1 attgcctaat atgattagaa tgattccgc tatgatttg ggttctaagc atgtcacttg
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301 taagctttat gattgctgct acaggtcatc tgatgttgat gctagtttg tggatgagta

//

LOCUS MN312535 417 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9175 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312535

VERSION MN312535

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 417)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 417)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..417

/organism="Bat coronavirus HKU6"

/mol_type="genomic RNA"

/isolate="9175"

/host="Myotis ricketti"

/db_xref="taxon:393045"

/country="China"

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/gene="RdRp"

CDS <1..>417

/gene="RdRp"

/codon_start=2

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/protein_id="QGA88155"

/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTEVI

YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQR

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ORIGIN

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121 aacagaggtt atctattcta atggtgggtt ttacctcaaa cctgggggga ccacttctgg
181 tgatgccact actgcttatg ccaattccgt gttaaatatt ttcaggctg ttagtgccaa
241 tgcaatagg ttgcttggtg ttgatagcaa cacatgcaac aacctagaag tcaagcaatt
301 acagcgaag ctttatgatt gctgctacag gtcgctaat gttgatgcca gtttcgtaga
361 tgagtatttt ggttatctac gtaagcattt ttctatgatg atcatctga tgatgga

//

LOCUS MN312536 403 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate 9176 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312536

VERSION MN312536

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="9176"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>403

/gene="RdRp"

CDS <1..>403

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88156"
/translation="RALPNMIRMISAMILGSKHVTCCTASDRFYRLSNELAQVLTEVI
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANVNRLLGVDSTCANNLEVKQLQR
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ORIGIN

1 tagggcattg cctaataatga ttagaatgat ttctgctatg atttggggtt ctaagcatgt
61 cacttggtgt actgctagt acaggttta cagactctcc aatgagctgg cccaagtctt
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301 acagcgtgtaag ctttatgatt gctgctacag gtcattctaat gttgatgcca gttttgtaga
361 tgagtatttt gggtatctac gtaagcattt ttctatgatg att

//

LOCUS MN312537 358 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate 9397 RNA-dependent RNA polymerase (RdRp)
gene, partial cds.

ACCESSION MN312537

VERSION MN312537

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="9397"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88157"
/translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
NGGFYLPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKELQRSL
YDNCYRTSTVDPAFVDT"

ORIGIN

1 tttgcctaat atgattcgta tgatatccgc catgattttg ggttctaagc atgaaaattg
61 ttgtactaac tctgaccgtt attatagatt atgtaacgag ttggcacaag tgctaactga
121 agtgggtctat tctaacggcg gtttttattt aaaaccaggt ggtacgacat caggtgatgc
181 aacgacagct tatgccaatt ctgtttttaa catcttcaa gcagttagt ctaacattaa
241 tcgcattttg ggcgtaata gcaatactg caataactg acagttaaag agtgcaacg
301 ctcatgtat gacaattgt atcgactag tactgttgac cctgccttg tagacacg

//

LOCUS MN312538 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate CZ02 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312538

VERSION MN312538

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronaviridae;

Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="CZ02"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88158"

/translation="RALPNMIRMVSAMILGSKHVNCCSSSDRYRLCNELAQVLTEMV

YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR

KLYDCCYRSSSVDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatggtt tctgcaatga tacttggttc taagcacggt
61 aactgctgta gttctagtga taggtactac aggttgtgta acgaactagc acaagtttta
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181 gatgetacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
241 gtaaccggt tgttgagtgt tgatagtaac acatgtaaca acatagaagt taagcaattg
301 cagcgttaagt tgatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa
361 gactactttg gttaccttcg taaacac tttctatgatga tt

//

LOCUS MN312539 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate CZ18-1 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312539

VERSION MN312539

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..402
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YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
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ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tetgcaatga tacttggttc taagcacggt
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LOCUS MN312540 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate CZ18-2 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312540

VERSION MN312540

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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LOCUS MN312541 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate CZ20 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312541

VERSION MN312541

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
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361 gagtactttg gttaccttcg taagcacttt tctatgatga tt

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LOCUS MN312542 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate CZ29 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312542
VERSION MN312542
KEYWORDS .
SOURCE Bat coronavirus 512
ORGANISM Bat coronavirus 512
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.
REFERENCE 1 (bases 1 to 408)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 408)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"

gene /country="China"
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CDS <1..>408
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ORIGIN

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121 agttttaaca gaaatggttt attcaaacgg tgcttttat gtcaaacctg gtggtactac
181 atctggtgat gctacaacag cttatgcca ttcagttttt aacatatttc aggcaactag
241 tgcaaatgtt aaccgctgt tgagtgtga tagtaataca tgtaacaaca tagaagttaa
301 gcaattgcag cgtaagtgtg atgattgtg ttatcgatca tcaagtgtgg atcaaagttt
361 tgttgaagag tactttggtt accttcgtaa acacttttct atgatgat

//

LOCUS MN312543 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate HD131577 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312543

VERSION MN312543

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus HKU6"
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/isolate="HD131577"
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/db_xref="taxon:393045"
/country="China"

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CDS <1..>402

/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
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ORIGIN

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241 gtcaacaggt tgcttgggtg ttagatgaac acatgcaaca atctcaagt caagcaatta
301 cagcgtaacg ttatgattg ctgctacaga tcatctagtg ttgatgctag tttgtggat
361 gagtattttg gctatctacg taggcatttt tctatgatga tt

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LOCUS MN312544 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate HD131580 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312544

VERSION MN312544

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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CDS <1..>402
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LOCUS MN312545 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate HD131581 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312545

VERSION MN312545

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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LOCUS MN312546 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus HKU6 isolate HD131583 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312546

VERSION MN312546

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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CDS <1..>402
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/protein_id="QGA88166"
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ORIGIN

1 agagcattac ctaacatgat tagaatgatt tccgctatga tcttgggttc taaacatgctc
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361 gagtattttg gttatctacg taagcatttt tctatgatga tt

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LOCUS MN312547 328 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate HD131585 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312547

VERSION MN312547

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 328)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 328)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..328

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/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

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CDS <1..>328

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/protein_id="QGA88167"
/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
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ORIGIN

1 agagctttgc ctaatatgat tcgtatgata tccgcatga ttttgggttc taagcatgaa
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181 gatgcaacga cagcttatgc caattctgtt ttaatatct tcaagcagt tagtgctaac
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LOCUS MN312548 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate HD131586 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312548

VERSION MN312548

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Alphacoronavirus; unclassified Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="HD131586"

/host="Miniopterus pusillus"

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/country="China"

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CDS <1..>402

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/protein_id="QGA88168"

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YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR

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ORIGIN

1 agagcattgc ctaatgat ccgatgata tccgcatga tttgggttc taaacatggg

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181 gatgcaacga cgcttatgc caattcagtg ttaatatct tcaagcagt tagtgctaac

241 attaatgca tttgggcgt taatagcaat acttgcaata acttgacagt taaaagttg

301 cagcgtctt tgatgacaa ttgtatcgc actagtactg tggaccctgc cttttagac

361 acatttatg gtacttacg caaacatttc tctatgatga tt

//

LOCUS MN312549 359 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU6 isolate HD131592 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312549

VERSION MN312549

KEYWORDS .

SOURCE Bat coronavirus HKU6

ORGANISM Bat coronavirus HKU6

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Bat coronavirus HKU6"
/mol_type="genomic RNA"
/isolate="HD131592"
/host="Myotis ricketti"
/db_xref="taxon:393045"
/country="China"

gene <1..>359

/gene="RdRp"

CDS <1..>359

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88169"

/translation="LGSKHVTCCTASDRFYRLSNELAQVLTEVIYSNNGGFYLPKGGTT
SGDATTAYANSVFNIFQAVSANVNRLLGVDSNTCNNLEVKQLQRKLYDCCYRSSNVDA
SFVDEYFGYLRLKHFSSMM"

ORIGIN

1 ttgggttct aagcatgtca cttgtgtac tgctagtgc aggtttata gactctctaa
61 tgagttagcc caagtttaa cagaggttat ctattctaat ggtggtttt acctcaaacc
121 tggaggtaca actctggtg atgccactac tgctatgcc aattctgtgt ttaatattt
181 tcaggctgtc agtccaatg tcaatagggt gcttgaggt gatagcaaca catgcaaca
241 cctgaagtc aagcaattac agcgaagct ttatgattgc tgctacaggt catctaatgt
301 tgatgctagt ttgtgtagt agtatttgg ttacctacgt aagcatttt ctatgatga

//

LOCUS MN312550 411 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate HK140626 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312550

VERSION MN312550

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="HK140626"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>411
/gene="RdRp"
CDS <1..>411
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88170"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDL
QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSSMMI"

ORIGIN

1 aatgtgatag agcattgcct aatgatgac gtatgatatc cgccatgatt ttgggtcca
61 agcatgagaa ttgtgtacc aactctgac gttattatag actatgcaat gagttagctc
121 aagtgctaac tgagtggtc tattctaag gtggtttta cttaaaccac ggtggtacga
181 catcgggtga tgcaacgaca gcttatgcca actctgtgtt taacatcttt caagcagtc
241 gtgctaacat taatcgata ttggcggtta atagcaacac ttgtaataac tgacagtta
301 aagatttga gcgctcgtg tatgataatt gttatcgac tagcactga gacctgct
361 ttgtagacac atttatggt tacttacgca aacattctc tatgatgatt c

//

LOCUS MN312551 411 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate HK140640 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312551

VERSION MN312551

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="HK140640"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>411
/gene="RdRp"
CDS <1..>411
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88171"
/translation="CDRALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTE
VVYSNGGFYLPKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKDL
QRSLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 aatgtgatag agcattgcct aatgatgac gtatgatatc cgccatgatt ttgggtcca
61 agcatgagaa ttgtgtacc aactctgac gttattatag actatgcaat gagtagctc
121 aagtgctaac tgagggtgc tattctaag gtggtttta cttaaacca ggtggtacga
181 catcgggtga tgcaacgaca gttatgcca actctgtgt taacatctc caagcagta
241 gtgctaacat taatcgata ttggcggtta atagcaacac ttgtaataac tgacagta
301 aagattgca gcgctcgtg tatgataatt gttatcgac tagcactgta gacctgcct
361 ttgtagacac atttatggt tacttagca aacattctc tatgatgatt c

//

LOCUS MN312552 337 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate HK140703 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312552

VERSION MN312552

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 337)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 337)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..337
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="HK140703"
/host="Scotophilus kuhlii"
/db_xref="taxon:2042696"
/country="China"
gene <1..>337
/gene="RdRp"
CDS <1..>337
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88172"
/translation="CCSSSDRYRLCNELAQVLTEMVYSNGGFYVKPGGTTSGDATTA
YANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQRKLYDCCYRSSSVDDQSFVEEYF
GYLRKHFSMM"

ORIGIN

1 ctgctgtagt tctagcgata ggtactacag attgtgtaac gaactagcac aagtttaac
61 agaatgggt tattcgaacg gtggcttta tgcaaacct ggtggtacta catctggtga
121 tgctacaaca gcttatgcca attcagtttt taacatattt caggcaacta gtgcaaatgt
181 taaccgcttg ttgagtgtg atagtaatac atgtaacaac atagaagtta agcaattgca
241 gcgtaagtgt tatgattgtt gttatcgatc atcaagtgtg gatcaaatgt ttgttgaaga
301 gtactttggt taccttcgca aacactttc tatgatg

//

LOCUS MN312553 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate HK140706 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312553

VERSION MN312553

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronaviridae;

Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="HK140706"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88173"
/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRRLCNELAQVLTEMV
YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDCCYRSSSVDDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tctgcaatga tacttggttc taagcacggt
61 aactgctgta gttctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttattcgaa cgggtggcttt tatgtcaaac ctggtggtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
241 gtaaccgct tgttgagtgt tgatagtaat acatgaaca acatagaagt taagcaattg
301 cagcgttaagt tgtatgattg ttgttatcga tcatcaagtg tggatcaaag tttgttgaa
361 gagtactttg gttatcttcg taaacacttt tctatgatga tt

//

LOCUS MN312554 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate HK140714 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312554

VERSION MN312554

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="HK140714"
/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"
/country="China"
gene <1..>406
/gene="RdRp"
CDS <1..>406
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88174"
/translation="CDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTE
MVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQL
QRKLYDCCYRSSSVDDQSFVEEYFGYLRKHFSMM"

ORIGIN

1 tgtgatagag ctttgccaa catgattaga atgattctg caatgatact tggttctaag
61 cacgttaact gctgtagttc tagcgatagg tactacagat tgtgtaacga actagcacia
121 gttttaacag aaatggttta ttaaacggg ggctttatg tcaaacctgg tggactaca
181 tctggtgatg ctacaacagc ttatgccaat tcagtttta acatattca ggcaactagt
241 gcaaatgta accgctgtt gagtgttgat agtaatacat gtaacaacat agaagttaag
301 caattgcagc gtaagttgta tgattgtgt tatcgatcat caagtgtgga tcaaagttt
361 gttgaagagt accttggtta ccttcgtaaa cacttttcta tgatga

//

LOCUS MN312555 395 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate HK140715 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312555

VERSION MN312555

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 395)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 395)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..395
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="HK140715"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"

gene <1..>395
/gene="RdRp"

CDS <1..>395

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88175"
/translation="ALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMVY
SNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNIEVKQLQRK
LYDCCYRSSSVDQSFVEEYFGYLRKHFSM"

ORIGIN

1 agctttgcc aacatgatta gaatgattc tgcaatgata cttggttcta agcatgtaa
61 ctgctgtagt tctagcgata ggtactacag attgtgtaac gaactagcac aagtttaac
121 agaaatggtt tattcgaacg gtggctttta tgtcaaacct ggtggtacta catctggtga
181 tgetacaaca gcttatgcca attcagtttt taacatattt caggcaacta gtgcaaatgt
241 taaccgcttg ttgagtgtg atagtaatac atgtaacaac atagaagtta agcaattgca
301 gcgtaagttg tatgattgtt gttatcgatc atcaagtgtg gatcaaagtt ttgttgaaga
361 gtactttggt taccttcgca aacacttttc tatga

//

LOCUS MN312556 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate HK140716 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312556

VERSION MN312556

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="HK140716"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88176"

/translation="CDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTE

MVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQL
QRKLYDCCYRSSSVQSFVEEYFGYLRKHFSMM"

ORIGIN

1 tgtgatagag cttgcccac catgattaga atgatttctg caatgatact tgggttctaag
61 cacgtaact gctgtagttc tagcgatagg tactacagat tgtgtaacga actagcacia
121 gtttaacag aaatggttta ttraacggt ggctttatg tcaaacctgg tggactaca
181 tctggtgatg ctacaacagc ttatgccaat tcagtttta acatatttca ggcaactagt
241 gcaaatgtta accgcttgtt gagtgttgat agtaatacat gtaacaacat agaagttaag
301 caattgcagc gtaagttgta tgattgttgt tategatcat caagtgtgga tcaaagttt
361 gttgaagagt actttggtta ccttcgcaa cacttttcta tgatga

//

LOCUS MN312557 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate HK140717 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312557

VERSION MN312557

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="HK140717"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88177"

/translation="CDRALPNMIRMISAMILGSKHVNCCSSDRYYRLCNELAQVLTE

MVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQL

QRKLYDCCYRSSSVQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 tgtgatagag cttgcccac catgattaga atgatttctg caatgatact tgggttctaag
61 cacgtaact gctgtagttc tagcgatagg tactacagat tgtgtaacga actagcacia

121 gttttaacag aaatggttta ttgaacggt ggctttatg tcaaactgg tggactaca
181 tctggtgatg ctacaacagc ttatgccaat tcagtttta acatattca ggcaactagt
241 gcaaagtta accgctgtt gagggtgat agtaatacat gyaacaacat agaagttaag
301 caattgcagc gtaagtgta tgattgttg tatgatcat caagtgtgga tcaaagttt
361 gttgaagagt actttggtta ccttcgtaaa cacttttcta tgatgatt

//

LOCUS MN312558 393 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate HK140720 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312558

VERSION MN312558

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..393

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="HK140720"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>393

/gene="RdRp"

CDS <1..>393

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88178"

/translation="LPNMIRMISAMILGSKHVNCCSSDRYYRLCNELAQVLTEMVYS

NGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNIEVKQLQRKL

YDCCYRSSVDQSFVEEYFGYLKHFMSM"

ORIGIN

1 cttgcccac catgattaga atgattctg caatgatact tggttctaag catgttaact
61 gctgtagtgc tagcgatagg tactacagat tgtgtaacga actagcacia gtttaacag
121 aaatggttta ttgaacggt ggctttatg tcaaactgg tggactaca tctggtgatg
181 ctacaacagc ttatgccaat tcagtttta acatattca ggcaactagt gcaaagtta
241 accgctgtt gagggtgat agtaatacat gtaacaacat agaagttaag caattgcagc
301 gtaagtgta tgattgttg tatgatcat caagtgtgga tcaaagttt gttgaagagt
361 actttggtta ccttcgcaaa cacttttcta tga

//
LOCUS MN312559 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate LS140735 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312559

VERSION MN312559

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"

/mol_type="genomic RNA"

/isolate="LS140735"

/host="Miniopterus schreibersii"

/db_xref="taxon:2042696"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88179"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV

YSNGGFYLKPGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKNLQR

SLYDNCYRTSSVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcaactgc ctaatatgat tcgtatgata tccgcatga ttttgggttc taagcatgaa
61 aattgttga ctaactcaga tcgtattat agactatgta acgagttggc tcaggtgcta
121 actgaagtag tctattctaa cggcggtttt tatttaaac caggtggtac cacatcgggt
181 gatgaacga cagcttatgc caattctgtg ttaatatct ttcaagcagt tagtgctaac
241 attaactgaa tcttggcgt taatagcaat acttgcaata atttaactgt taaaaattg
301 caacgctcat tgtatgataa ttgtatcgc actagttctg ttgacctgc ctttgtagac
361 acatttatg gttacctacg caaacattt tctatgatga tt

//
LOCUS MN312560 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate LS140741 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312560

VERSION MN312560

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="LS140741"
/host="Miniopterus schreibersii"
/db_xref="taxon:2042696"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88180"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNLTVKDLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatgat tcgatgata tccgcatga tttgggttc caagcatgag
61 aattgttga ccaactga tcgtattat agactatgca atgagttage tcaagtgcta
121 actgaggtgg tctattctaa tgggtgttt tactaaaac caggtggtac gacatcgggt
181 gatgcaacga cagcttatgc caactctgtg ttaacatct tcaagcagt cagtgctaac
241 attaatcgca tattggcgt taatagcaac acttgaata acttgacagt taaagattg
301 cagcgtcgt tgtatgataa ttgtatcgc actagcactg tagaccctgc cttttagac
361 acatttatg gttacttac caaacattc tctatgatga tt

//

LOCUS MN312561 359 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate ML140002 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312561

VERSION MN312561

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="ML140002"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>359

/gene="RdRp"

CDS <1..>359

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88181"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDFYRLSNELAQVLNE

VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL

QRSIYDNCYRSSAVDDT"

ORIGIN

1 gtgtgatagg gctatgccta gtatgatacg tatgcttgc gccatggtc ttggatctaa

61 gcacgttaca tgtgttacag acagtgatag gttttacaga ctttctaacg aacttgcgca

121 agttcttaat gaggtgtgac attctaattg aggtttttat gtaaacctg gtggcactac

181 atcagtgat gctacaactg cttatgcaaa ttctgtttt aacatcttc aggcagttag

241 ctctaacatt aacaggttc tttctgttga tagtaattg tgtaacaact tgtatgtaa

301 aaagcttcag cgctctatct atgacaattg ttataggtct agtgctgttg atgacactg

//

LOCUS MN312562 355 bp RNA linear VRL 07-NOV-2019

DEFINITION Miniopterus bat coronavirus HKU8 isolate ML140028 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312562

VERSION MN312562

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 355)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..355
/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="ML140028"
/host="Miniopterus sp."
/db_xref="taxon:694001"
/country="China"
gene <1..>355
/gene="RdRp"
CDS <1..>355
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88182"
/translation="RALPNMIRMISAMILGSKHVNCCNSDRYYRLCNELAQVLTEVV
YSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSLQR
MLYDNCYRSSAVDPGF"

ORIGIN

1 agagcattgc ctaacatgat tcgtatgatt tctgctatga tttggggttc taagcatggt
61 aattgttga ccaattcaga tcgtattat agactttgta atgaacttgc acaagttctt
121 actgaggtgg tctattctaa cgggggttcc tatatgaagc ctgggtgttac tacttctggt
181 gatgccacta ctgctatgc taattctgtt tcaacatat tccagctgt tagtgctaat
241 attaatagga tttgggtat taatagtaat acctgtaata atcttactgt taagtcactt
301 cagcgcacgc tctatgacaa ttgtataga agttctgccg ttgatcctgg ttttg

//

LOCUS MN312563 328 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate ML140029 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312563
VERSION MN312563
KEYWORDS .

SOURCE Bat coronavirus 1
ORGANISM Bat coronavirus 1
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 328)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 328)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..328
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="ML140029"
/host="Miniopterus sp."
/db_xref="taxon:2042696"
/country="China"
gene <1..>328
/gene="RdRp"
CDS <1..>328
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88183"
/translation="SDRYRYRLCNELAQVLTEVVYSNGGFYLPKGGTTSGDATTAYANS
VFNIFQAVSANINRILGVNSNTCNNLTVKDLQRSLYDNCYRTSTVDPAFVDTFYGYLR
KHFSMM"

ORIGIN

1 actctgatcg ttattataga ctatgcaatg agttagctca agtgctaact gaggtagtct
61 attctaattg tggttttat taaaaccag gtggtacgac atcgggtgat gcaacgacgg
121 cttatgcaa ctctgtgttt aatatcttc aagcagtcag tgtaacatt aatcgcatat
181 tgggcgtaa tagcaatact tgtaataact tgacagtaa agatttgcag cgctcgttgt
241 atgacaattg ttatgcgact agtactgtag accctgcctt tgtagacacg ttttatggt
301 acttacgcaa acatttctct atgatgat

//

LOCUS MN312564 355 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate ML140030 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312564

VERSION MN312564

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="ML140030"
/host="Miniopterus schreibersii"
/db_xref="taxon:2419667"
/country="China"
gene <1..>355
/gene="RdRp"
CDS <1..>355
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88184"
/translation="ALPNMIRMISAMILGSKHVNCCTASDRYYRLCNELAQVLTEVVH
SNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSIQRM
LYDNCYRTSAVDSGLS"

ORIGIN

1 gagcacttcc taatatgata cgtatgatat cagccatgat tcttggttcc aaacatgta
61 actgttgtag gcctctgat aggtattatc gcctttgtaa tgagttggct caggttctta
121 ctgaagtcgt ccattcaaat ggtggttct atatgaaacc tggcgggtact acttctggtg
181 atgccacaac agcttatgct aattctgtgt ttaacatttt ccaagctggt agtgccaata
241 ttaatcgtat atggggcatt aatagaata catgtaata ccttactggt aagtctatac
301 agcgtatggt gtacgacaat tgtatcgta cttctgctgt tgactctggc ttgtc

//

LOCUS MN312565 375 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate ML140031 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312565

VERSION MN312565

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="ML140031"
/host="Miniopterus schreibersii"

/db_xref="taxon:2419667"
/country="China"
gene <1..>375
/gene="RdRp"
CDS <1..>375
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88185"
/translation="LPNMIRMISAMILGSKHVCCTASDRYYRLCNELAQVLTEVVHS
NGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSIQRML
YDNCYRTSAVDSGFVDTFYGYL"

ORIGIN

1 cacttctaa tatgatacgt atgatatcag ccatgattct tggttctaag catgttaatt
61 gttgtactgc ctctgatagg tactaccgcc tttgtaatga gttggctcag gttcttactg
121 aagtcgtcca tcaaatggt ggtttttaca tgaacctgg tgggtactact tctggtgatg
181 ctacaacagc ttatgccaat tctgtgttta acattttcca agctgttagt gccaatatca
241 atcgatatatt gggcattaat agcaacacat gtaacaatct tactgttaag tctatacagc
301 gtatgttgta cgacaattgt tategtactt cegctgttga ctctggcttt gtcgacacct
361 tttatggtta tctta

//

LOCUS MN312566 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate ML140033-1 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312566

VERSION MN312566

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387
/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="ML140033-1"
/host="Miniopterus fuscus"
/db_xref="taxon:2042696"
/country="China"
gene <1..>387
/gene="RdRp"

CDS <1..>387
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88186"
/translation="LPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVVYS
NGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCDNLTVKGLQRSL
YDNCYRTSTVDPAFVDTFYGYLRKHFS"

ORIGIN

1 attgcctaat atgattcgta tgatatccgc catgattttg ggtccaagc atgagaattg
61 ttgtaccaac tctgatcgtt attatagact atgtaatgag ttagctcaag tgctaactga
121 ggtagtctat tctaattggtg gtttttattt aaaaccaggt ggtacgacat cgggtgatgc
181 aacgacggct tatgccaact ctgtgtttaa cattttcaa gcagtcagtg ctaacattaa
241 tcgcatactg ggcgtaata gcaatacttg tgataactta acagttaaag gtttcagcgc
301 ctcgttgat gataattgtt atcgactag cactgtggac cctgccttg tagacacctt
361 ttatggttac ttacgcaaac atttctc

//

LOCUS MN312567 387 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate ML140033-2 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312567

VERSION MN312567

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="ML140033-2"

/host="Miniopterus fuscus"

/db_xref="taxon:2419667"

/country="China"

gene <1..>387

/gene="RdRp"

CDS <1..>387

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88187"
/translation="LPNMIRMISAMILGSKHVNCCTASDRYYRLCNELAQVLTEVVHS
NGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKSIQRML
YDNCYRTSAVDSGFVDTFYGYLRKLF"

ORIGIN

1 acttcctaat atgatacgtg tgatacagc catgattctt ggttctaagc atgttaattg
61 ttgtactgcc tctgataggt actaccgect ttgtaatgag ttggtcagg ttcttactga
121 agtcgtccat tcaaatggtg gttttacat gaaacctggt ggtactactt ctggatgatc
181 tacaacagct tatccaatt ctgtgttaa cattttcaa gctgtagtg ccaatatcaa
241 tcgtatattg ggcattaata gcaacacatg taacaatctt actgttaagt ctatacagcg
301 tatgtgtgac gacaattgtt atcgtacttc cgctgttgac tctggtttg tcgacacct
361 ttatggttat cttaggaagc tctttc

//

LOCUS MN312568 352 bp RNA linear VRL 07-NOV-2019
DEFINITION Miniopterus bat coronavirus HKU8 isolate ML140094 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312568

VERSION MN312568

KEYWORDS .

SOURCE Miniopterus bat coronavirus HKU8

ORGANISM Miniopterus bat coronavirus HKU8

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Minunacovirus.

REFERENCE 1 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..352

/organism="Miniopterus bat coronavirus HKU8"
/mol_type="genomic RNA"
/isolate="ML140094"
/host="Miniopterus fuscus"
/db_xref="taxon:694001"
/country="China"

gene <1..>352
/gene="RdRp"

CDS <1..>352
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88188"
/translation="KCDRALPNMIRMISAMILGSKHVNCCTNSDRYYRLCNELAQVLT
EVVYSNGGFYMKPGGTTSGDATTAYANSVFNIFQAVSANINRILGINSNTCNNLTVKS
LQRMLYDNCYRSSAV"

ORIGIN

1 aaatgtgac gtgcattgcc taacatgatt cgtatgattt ctgctatgat tttgggttct
61 aagcatgta actgtgtgac caattcagat cgttattata gactttgtaa tgaacttgca
121 caagttctta ctgagggtgt ctattctaac ggggggttct atatgaagcc tgggtgtact
181 acttctggtg atgccactac tgcctatget aattctgttt tcaacatatt ccaggctgtt
241 agtgctaata ttaataggat tttgggtatt aatagtaata cctgtaataa tcttactgtt
301 aagtcactc agcgcagct ctatgacaat tgttatagaa gttctgctgt tg

//

LOCUS MN312569 409 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate NL140456 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312569

VERSION MN312569

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="NL140456"
/host="Hypsugo sp."
/db_xref="taxon:2419667"
/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88189"

/translation="CDRALPNMIRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNLNVKQL
QRRLYDNCYRSSGVDDEFVNDYYCYLQKHFSMMI"

ORIGIN

1 tgtgatagag cattgcctaa tatgatacgc atgatctcag caatgatctt gggttccaaa
61 cacaccaact gctgtacacc ttcggataga tattaccgct tgtgcaatga gtagctcag
121 gtgettacag aggttgtcta tcaaatggt ggcttttact ttaagcctgg tgggtactact
181 tctggtgatg ctacaactgc ttatgcaaac tccgtcttta atatcttcca ggctgttagc
241 gctaagtgtta acagactgtt ggggtatagat tccaacactt gtacaactct taatgtcaaa

301 caattgcagc gtcgattgta tgacaattgt tatagaagtt ctggtgtgga tgatgagttt
361 gttaacgatt atactgta ttacagaaa catttttcta tgatgattc

//

LOCUS MN312570 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat alphacoronavirus isolate NL140459 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312570

VERSION MN312570

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="NL140459"
/host="Hypsugo sp."
/db_xref="taxon:2419667"
/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88190"

/translation="CDRALPNMIRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNNLNKQL
QRRLYDNCYRSSGVDDEFVNDYYCYLQKHFSMMI"

ORIGIN

1 tgtgacagag cattgcctaa tatgatacgc atgatctcag caatgatctt gggttccaaa
61 cacaccaact gctgtacacc ttcggataga tattaccgct tgtgcaatga gttagctcag
121 gtgcttacag aggtgtgcta ttcaaatggt ggcttttact ttaagcctgg tggctactact
181 tctggtgatg ctacaactgc ttatgcaaac tccgtcttta atatcttcca ggctgtttagc
241 gctaagtta acagactggt gggatatagat tccaacactt gtaacaatct taatgtcaaa
301 caattgcagc gtcgattgta tgacaattgt tatagaagtt ctggtgtgga tgatgagttt
361 gttaacgatt atactgta ttacagaaa catttttcta tgatgattc

//

LOCUS MN312571 321 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate NL140460 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312571

VERSION MN312571

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae; Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 321)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 321)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..321

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="NL140460"

/host="Hypsugo sp."

/db_xref="taxon:2419667"

/country="China"

gene <1..>321

/gene="RdRp"

CDS <1..>321

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88191"

/translation="IRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTEVVYSNGGF

YFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNLNVKQLQRRLYDNC

YRSS"

ORIGIN

1 tgatagcat gatctcagca atgatcttgg gtccaaca caccaactgc tgtacacctt

61 cggatagata ttaccgcttg tgcgatgagt tagctcaggt gttacagag gttgtctatt

121 caaatgggtgg ctttacttt aagcctggtg gtactacttc tggatgatgct acaactgctt

181 atgcaaactc cgtctttaat atctccagg ctgttagcgc taatgtaac agactgttgg

241 gtagatatt caacactgt acaatctta atgtcaaca attgcagcgt cgattgtatg

301 acaattgta tagaagtctt g

//

LOCUS MN312572 418 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate NL140461 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312572

VERSION MN312572

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..418

/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="NL140461"
/host="Hypsugo sp."
/db_xref="taxon:2419667"
/country="China"

gene <1..>418

/gene="RdRp"

CDS <1..>418

/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88192"
/translation="DRALPNMIRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTEV
VYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNLNKVLQ
RRLYDNCYRSSGVDDEFVNDYYCYLQKHFSMMIQLM"

ORIGIN

1 gtcacagagc atgccta atgatacga tgatcagc aatgatctg ggtcaaac
61 acaccaactg ttgtacacct tctgatagat attaccgctt gtcgaatgag ttagctcagg
121 tgcttacaga ggtgtctat tcaaatggag gttttactt taagcctggt ggtactactt
181 ctggtgatgc tactactgct tatgcaaact cagtctttaa tatcttcag gctgttagcg
241 ctaatgtaa cagactgttg ggtatagatt ccaactctg taacaatctt aatgtcaaac
301 aattgcagcg tcgattgtac gacaattgt atagaagtc tgggtggat gacgagttg
361 ttaatgatta ttactgttat ttacagaaac attttctat gatgattcaa ctgatgat

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LOCUS MN312573 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate NL140463 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312573

VERSION MN312573

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified

Alphacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Bat alphacoronavirus"
/mol_type="genomic RNA"
/isolate="NL140463"
/host="Hypsugo sp."
/db_xref="taxon:2419667"
/country="China"
gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88193"
/translation="CDRALPNMIRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNLNVKQL
QRRLYDNCYRSSGVDDEFVNDYYCYLQKHFSMMI"

ORIGIN

1 tgtgacagag cattgcctaa tatgatacgc atgatctcag caatgatctt gggttccaaa
61 cacaccaact gctgtacacc ttcggataga tattaccgct tgtgcaatga gttagctcag
121 gtgcttacag aggtgtgcta tcaaatggt ggcttttact ttaagcctgg tggctactact
181 tetggtgatg ctacaactgc ttatgcaaac tccgtcttta atatcttcca ggctgtagc
241 gctaagtta acagactggt gggtagatg tccaacactt gtaacaatct taatgcaaa
301 caattgcagc gtcgattgta tgacaattgt tatagaagtt ctggtgtgga tgatgagttt
361 gtaacgatt attactgta ttacagaaa catttttcta tgatgatt

//

LOCUS MN312574 409 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate NL140464 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312574

VERSION MN312574

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="NL140464"

/host="Hypsugo sp."

/db_xref="taxon:2419667"

/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88194"

/translation="CDRALPNMIRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNNLNKQL
QRRLYDNCYRSSGVDDEFVNDYYCYLQKHFSMMI"

ORIGIN

1 tgtgacagag cattgectaa tatgatacgc atgatctcag caatgatctt ggggtccaaa
61 cacaccaact gctgtacacc ttcggataga tattaccgct tgtgcaatga gtagctcag
121 gtgcttacag aggtgtgcta ttcaatggt ggttttact ttaagcctgg tggtagctact
181 tctggtgatg ctacaactgc ttatgcaaac tccgtcttta atatcttcca ggctgttagc
241 gctaatgta acagactggt gggatatagat tccaacactt gtaacaatct taatgtcaaa
301 caattgcagc gtcgattgta tgacaattgt tatagaagtt ctggtgtgga tgatgagttt
361 gtaacgatt attactgta ttacagaaa catttttcta tgatgattc

//

LOCUS MN312575 419 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat alphacoronavirus isolate NL140480 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312575

VERSION MN312575

KEYWORDS .

SOURCE Bat alphacoronavirus

ORGANISM Bat alphacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 419)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 419)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..419

/organism="Bat alphacoronavirus"

/mol_type="genomic RNA"

/isolate="NL140480"

/host="Hypsugo sp."

/db_xref="taxon:2419667"

/country="China"

gene <1..>419

/gene="RdRp"

CDS <1..>419

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88195"

/translation="CDRALPNMIRMISAMILGSKHTNCCTPSDRYYRLCNELAQVLTE
VVYSNGGFYFKPGGTTSGDATTAYANSVFNIFQAVSANVNRLLGIDSNTCNNLNKQL
QRRLYDNCYRSSGVDDEFVNDYYCYLQKHFSMMIQLM"

ORIGIN

1 tgtgacagag cattgcctaa tatgatacgc atgatctcag caatgatctt ggggtcaaaa
61 cacaccaact gttgtacacc tctgataga tattaccgct tgtgcaatga gttagctcag
121 gtgcttacag aggtgtccta tcaaatgga ggttttact ttaagcctgg tggtagctact
181 tetggtgatg ctactactgc ttatgcaaac tcagtcttta atatctcca ggcgtgttagc
241 gctaagtta acagactggt gggtatagat tccaatactt gtaacaatct taatgtcaaa
301 caattgcagc gtcgattgta cgacaattgt tatagaagtt ctggtgtgga tgacgagttt
361 gtaaatgatt attactgtta ttacagaaa catttttcta tgatgattca actgatgat

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LOCUS MN312576 407 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140904 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312576

VERSION MN312576

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..407
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="QZ140904"
 /host="Rhinolophus affinis"
 /db_xref="taxon:693998"
 /country="China"
gene <1..>407
 /gene="RdRp"
CDS <1..>407
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88196"
 /translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
 VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
 QRSIYDNCYRSSAVDDNVVTDIFYNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctatgcctag tatgattcgc atgcttgctg ccatggttct tggctcgaag
61 catgttcatc gttgtacaga tagtgacagg tttacagac tctccaatga actgcacaa
121 gttcttaatg aagttgtgca ctctaacgga gggttttatg taaaacctgg cgggtaccaca
181 tcaggtgacg ctacaacagc ttatgcaaac tctgtgttta acattttca ggcagttgac
241 tetaacatca ataggcttct ttctgttgat agtaatgtgt gcaacaactt atatgtcaaa
301 aagctccagc gctctatcta tgacaattgt tatagatcta gcgctgtcga tgacaatgtt
361 gtcacagatt tctataatta ccttaagaag catttcteta tgatgat

//

LOCUS MN312577 404 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140908 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312577

VERSION MN312577

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..404
 /organism="Rhinolophus bat coronavirus HKU2"
 /mol_type="genomic RNA"
 /isolate="QZ140908"

/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>404
/gene="RdRp"
CDS <1..>404
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88197"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTDYFNYLKKHFSM"

ORIGIN

1 tgtgatagag ctatgcctag tatgattcgc atgcttgctg ccatggttct tggctcgaag
61 catgttacat gttgtacaga tagtgacagg tttacagac tctccaatga acttgacaaa
121 gtcttaaatg aagttgtgca ctctaacgga gggttttatg taaaacctgg cgggtaccaca
181 tcaggtgacg ctacaacagc ttatgcaaac tctgtgttta acattttca ggcagttagc
241 tctaacatca ataggtctct ttctgttgat agtaatgtgt gcaacaactt atatgtcaaa
301 aagctccagc gctctateta tgacaattgt tatagatceta gcgctgtcga tgacaatgtt
361 gtcacagatt tctataatta ccttaagaag catttcteta tgat

//

LOCUS MN312578 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140909 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312578

VERSION MN312578

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="QZ140909"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>402
/gene="RdRp"

CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88198"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTFYNYLKKHFSMMI"

ORIGIN

1 agagctatgc ctagtatgat tcgcatgctt gctgccatgg ttcttgctc aaagcatgtt
61 acatgttga cagatagtga caggttttac agactctcca atgaacttgc acaagttctt
121 aatgaagttg tgcactctaa tggagggttt tatgtaaaac cgggtgttac tacatcaggt
181 gacgctacaa cagcttatgc aaactctgtg ttaacattt tcaggcagt tagctctaac
241 attaataggc ttctttctgt tgatagtaat ggtgcaaca acttatatgt caaaaagctc
301 cagcgtctca tctatgacaa ttgtataga tctagcgtg ttgatgacaa tgttgcaca
361 gattctata attatcttaa gaagcatttc tctatgatga tt

//

LOCUS MN312579 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140920 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312579

VERSION MN312579

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="QZ140920"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>408
/gene="RdRp"

CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88199"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTDYFNYLKKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctag tatgattcgc atgcttgcg ccatggttct tggctcaaag
61 catgttcat gttgtacaga tagtgacagg tttacagac tctcaatga actgcacaa
121 gttctaatg aagttgtgca ctctaattga gggttttatg taaaaccgg tggactaca
181 ttaggtgacg ctacaacagc ttatgcaaac tctgtgttta acattttca ggcagttagc
241 tctaacatta atagcttct tctgttgat agtaatgtg gcaacaactt atatgtcaa
301 aagctccagc gctctatcta tgacaattgt tatagatcta gcgctgttga tgacaatgt
361 gtcacagatt tctataatta tcttaagaag catttcteta tgatgatt

//

LOCUS MN312580 405 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140932 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312580

VERSION MN312580

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="QZ140932"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88200"

/translation="DRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEV

VHNSGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQ
RSIYDNCYRSSAVDDNVVTDYFNYLKKHFSMMI"

ORIGIN

1 gtgatagagc tatgcttagt atgattcgca tgcttgcgcat gctgttctt ggctcgaagc

61 atgttacatg ttgtacagat agtgacaggt ttacagact ctccaatgaa cttgcgcagg
121 ttcttaacga agttgtgcac tctaacggag ggtttatgt aaaaccggc ggtaccacat
181 caggtgacgc tacaacagct tatgcaaac ctgtgtttaa cattttcag gcagttagct
241 ctaatattaa taggcttctt tctgttgata gtaatgtgtg caacaactta tatgtcaaaa
301 agctccageg ctctatctat gacaattgt atagatctag cgctgtcgat gacaatgttg
361 ttacagatt ctataattac ctaagaagc atttctctat gatga

//

LOCUS MN312581 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus HKU10 isolate QZ140937 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312581

VERSION MN312581

KEYWORDS .

SOURCE Bat coronavirus HKU10

ORGANISM Bat coronavirus HKU10

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Decacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Bat coronavirus HKU10"

/mol_type="genomic RNA"

/isolate="QZ140937"

/host="Hipposideros pomona"

/db_xref="taxon:1244203"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88201"

/translation="CDRALPNMIRMISAMILGSKHTTCCTTDERYYRLCNELAQVLTE

VVYSNGGFYFKPGGTTSGDASTAYANSVFNIFQAVSSNINRLLTIDSNVCNNVSVKTL

QRELYDNCYRSSSVDEQFIDKYCYLRKHFSSMM"

ORIGIN

1 tgtgatagag cattgcctaa catgatacgc atgatctctg ctatgatact tggttcaaaa
61 cacactactt gttgtaccac tgatgagcgg tactatcggg tgtgtaatga attagctcaa
121 gttttaacag aggttggtga ttctaatggt ggctttatt tcaaaccagg tggactact
181 tccggtgacg catctacage ctatgctaac tcagttctta atattttca agcagtcagt
241 ttaacatta acaggttgct gactatcgc agcaatgttt gtaataatgt tagtgtcaaa
301 actctgcaaa gagaattgta tgacaactgt tatagatctt caagtgtcga cgaacaattc

361 atagataagt attattgcta tttagcgaag cacttttcta tgatga

//

LOCUS MN312582 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140941 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312582

VERSION MN312582

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="QZ140941"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88202"

/translation="CDRAMPSMIRMLAAMVVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTDYFNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctatgcctag tatgattcgc atgcttgctg ccatggttct tggctcgaag
61 catgttacat gttgtacaga tagtgacagg tttagcagac tctccaatga acttgcgcag
121 gtcttaacg aagtttgca cttaacgga gggtttatg taaacccgg cggtagcacg
181 tcaggtgacg ctacaacagc ttatgcaaac tctgtgttta acattttca ggcagttgac
241 tetaacatca ataggcttct ttctgtgat agtaatgtgt gcaacaactt atatgtcaaa
301 aagctccagc gctctatcta tgacaattgt tatagatcta gcgctgttga tgacaatgtt
361 gtcacagatt tctataatta ccttaagaag catttcteta tgatga

//

LOCUS MN312583 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate QZ140953 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312583

VERSION MN312583

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Rhinolophus bat coronavirus HKU2"

/mol_type="genomic RNA"

/isolate="QZ140953"

/host="Rhinolophus affinis"

/db_xref="taxon:693998"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88203"

/translation="CDRAMPSMIRMLAAMVLGSKHVTCTDSDRFYRLSNELAQVLNE

VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL

QRSIYDNCYRSSAVDDNVVTDYFNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctatgcctag tatgattcgc atgcttgctg ccatggttct tggctcaag

61 catgttacat gttgtacaga tagtgacagg tttacagac tctccaatga actgcacaa

121 gttctaatg aagtgtgca ctctaatgga gggttttatg taaaaccgg tggctactaca

181 tcaggtgacg ctacaacagc ttatgcaaac tctgtgttta acattttca ggcagttagc

241 tctaacatta atagcttctt ttctgttgat agtaatgtg gcaacaactt atatgtcaaa

301 aagctccagc gctctatcta tgacaattgt tatagatcta gcgctgttga tgacaatgtt

361 gtcacagatt tctataatta tcttaagaag catttctcta tgatga

//

LOCUS MN312584 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate QZ140986 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312584

VERSION MN312584

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="QZ140986"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88204"
/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMV
YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDCCYRSSSVQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tctgcaatga tacttggttc taagcacggt
61 aactgctgta gttctagcga taggtactac agattgtgta acgaactagc acaagtttta
121 acagaaatgg ttattcgaa cgggtgcttt tatgtcaaac ctggtggtac tacatctggt
181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaaat
241 gtaaccgct tgttgagtgt tgatagtaat acatgaaca acatagaagt taagcaattg
301 cagcgtagt tgtatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa
361 gagtactttg gttaccttcg caaacacttt tctatgatga tt

//

LOCUS MN312585 377 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate QZ140993 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312585

VERSION MN312585

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..377
/organism="Bat coronavirus 512"
/mol_type="genomic RNA"
/isolate="QZ140993"
/host="Scotophilus kuhlii"
/db_xref="taxon:2664421"
/country="China"
gene <1..>377
/gene="RdRp"
CDS <1..>377
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88205"
/translation="ALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTEMVY
SNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQRK
LYDCCYRSSSVDQSFVEEYFGYL"

ORIGIN

1 agctttgccc aacatgatta gaatgattc tgcaatgata cttggttcta agcatgtaa
61 ctgctgtagt tctagecaga ggtactacag attgtgtaac gaactagcac aagttttaa
121 agaaatggtt tattegaacg gtggctttaa tgtcaaacct ggtggtacta catctggtga
181 tgetacaaca gcttatgcca attcagtttt taacatattt caggcaacta gtgcaaatgt
241 taaccgcttg ttgagtgttg atagtaatac atgtaacaac atagaagta agcaattgca
301 gcgtaagttg tatgattggt gttatcgatc atcaagtgtg gatcaaagt ttgttgaaga
361 gtactttggt taccttc

//

LOCUS MN312586 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Rhinolophus bat coronavirus HKU2 isolate SY141007 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312586

VERSION MN312586

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..406
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="SY141007"
/host="Rhinolophus pusillus"
/db_xref="taxon:693998"
/country="China"
gene <1..>406
/gene="RdRp"
CDS <1..>406
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88206"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLANELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNVNRLLSVDSNVCSNLYVKKL
QRDIYDNCYRSSAVDDGVVTDVFYNYLKKHFSMM"

ORIGIN

1 tgtgatagag ctatgcctag tatgatacgt atgttggcag ctatggttct tggctetaag
61 catgtaactt gttgcacaga tagtgatagg tttacagac tagctaata gttggcacia
121 gttctaatg aagttgtgca ttctaattgg ggcctttatg taaacctgg tggctact
181 tctggtgat caacaactgc gtatgccaac tcagtttta atatttcca ggctgttag
241 tctaattgta ataggcttt gtctgtcgat agtaatgtct gtagtaacct atatgttaa
301 aagttgcagc gtgatatcta tgacaattgt tatagatcta gtgcagttga tgatggtgt
361 gttacggatt ttataacta tcttaaaaag cattttcta tgatga

//

LOCUS MN312587 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate SY141032 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312587

VERSION MN312587

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="SY141032"
/host="Rhinolophus affinis"
/db_xref="taxon:693998"
/country="China"
gene <1..>401
/gene="RdRp"
CDS <1..>401
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88207"
/translation="RAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNEVV
HSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKLQR
SIYDNCYRSSAVDDNVVTFYNYLKKHFSMM"

ORIGIN

1 atagagctat gcctagatg attgcatgc ttgctgcat ggttcttggc tgaagcatg
61 ttacatgttg tacagatagt gacaggtttt acagactctc caatgaactt ggcgaggttc
121 ttaatgaagt tgtgactct aacggagggt ttatgtaaa acccgcgctg accacgtcag
181 gtgacgtac aacagcttat gcaaactctg tgttaacat tttcaggca gtagctcta
241 ayattaatag gcttctttt gttgatagta atgtgtgcaa caacttatat gtcaaaaage
301 tccagcgtc tatctatgac aattgttata gatctagcgc tgcgatgac aatgttgta
361 cagattcta taattacctt aagaagcatt tctctatgat g

//

LOCUS MN312588 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Rhinolophus bat coronavirus HKU2 isolate SY141049 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312588

VERSION MN312588

KEYWORDS .

SOURCE Rhinolophus bat coronavirus HKU2

ORGANISM Rhinolophus bat coronavirus HKU2

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; Rhinacovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Rhinolophus bat coronavirus HKU2"
/mol_type="genomic RNA"
/isolate="SY141049"
/host="Rhinolophus affinis"

/db_xref="taxon:693998"
/country="China"
gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88208"
/translation="CDRAMPSMIRMLAAMVLGSKHVTCCTDSDRFYRLSNELAQVLNE
VVHSNGGFYVKPGGTTSGDATTAYANSVFNIFQAVSSNINRLLSVDSNVCNNLYVKKL
QRSIYDNCYRSSAVDDNVVTDYFNYLKKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctag tatgattcgc atgcttgctg ccatggttct tggctcgaag
61 catgttaccat gttgtacaga tagtgacagg tttacagac tctccaatga acttgccgag
121 gttctaatg aagtgtgca ctctaacgga gggttttatg taaaaccgg cggtagccag
181 tcaggtgacg ctacaacagc ttatgcaaac tctgtgttta acattttca ggcagttagc
241 tctaataatta ataggcttct ttctgttgat agtaatgtgt gcaacaactt atatgtcaaa
301 aagtcaccagc gctctatcta tgacaattgt tatagatcta gcgctgtcga tgacaatgtt
361 gtcacagatt tctataatta ccttaagaag catttcteta tgatgatt

//

LOCUS MN312589 322 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 512 isolate SZ140292 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312589

VERSION MN312589

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 322)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 322)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..322

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="SZ140292"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>322

/gene="RdRp"

CDS <1..>322

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88209"
/translation="RALPNMIRMISAMILGSKHVNCCNATDRYYRLCNELAQVLTEMV
YSNGGFYIKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR
KLYDD"

ORIGIN

1 agagcattgc ccaacatgat tagaatgatt tctgctatga ttcttggttc caagcacgtc
61 aactgctgta atgccactga tcggtattac aggctctgta atgagttggc acaggttctt
121 acagaaatgg ttattccaa tgggtggttt tatattaac caggtggcac aacttctggt
181 gatgcaacca cagcttatgc caattcagtt tcaacattt ttcaggcaac tagtgcta
241 gtaacagat tgttgagtgt tgatagtaac acttgaaca acatagaggt taaacagta
301 cagcgaagt tgtatgatga tt

//

LOCUS MN312590 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 1 isolate SZ140296 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312590

VERSION MN312590

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="SZ140296"
/host="Rhinolophus sinicus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88210"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV"

CSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagcattgc ctaatatgat ccgatgata tccgcatga ttttgggttc taagcatgag
61 aattgttga ctaactctga ccgtattat agactatgta acgagttggc tcaagtgcta
121 actgaagtag tctgttctaa tgggtgtttt tacctaaaac caggtggtac gacatcgggt
181 gatgcaacga cggettatgc caattcagtg ttaatatct tcaagcagt cagtgctaac
241 attaatcgca ttttgggcgt taatagcaat acttgcaata acttgacagt taaaagttg
301 cagegctctt tgatgacaa ttgtatcgc actagtactg tagaccctgc cttttagac
361 acatttatg gttacttacg caaacatttc tctatgatga tt

//

LOCUS MN312591 353 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate SZ140322 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312591

VERSION MN312591

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 353)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 353)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..353

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="SZ140322"
/host="Tylonycteris pachypus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>353

/gene="RdRp"

CDS <1..>353

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88211"

/translation="RALPNMIRMISAMILGSKHENCCTNSDRYYRLCNELAQVLTEVV

YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKSLQR
SLYDNCYRTSTVDPA"

ORIGIN

1 agagcattgc ctaatatgat ccgatgata tccgcatga ttttgggttc taagcatgag

61 aattgttgta ctaactctga ccgttattat agactatgta acgagttggc tcaagtgcta
121 actgaagtag tctattctaa tgggtggttt tacctaaaac caggtggtac gacatcgggt
181 gatgcaacga cggttatgac caattcagtg ttaatatct tcaagcagt cagtgctaac
241 attaatcgca ttttgggcgt taatagcaat acttgcaata acttgacagt taaaagtttg
301 cagcgtctct tgtatgacaa ttgtatcgc actagtactg tagaccctgc ctt

//

LOCUS MN312592 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus 1 isolate XX13164-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312592

VERSION MN312592

KEYWORDS .

SOURCE Bat coronavirus 1

ORGANISM Bat coronavirus 1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Alphacoronavirus; unclassified
Alphacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 1"
/mol_type="genomic RNA"
/isolate="XX13164-2"
/host="Miniopterus fuliginosus"
/db_xref="taxon:2042696"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88212"

/translation="RALPNVIRMISAMILGSEHENCCTNFDRYYRLCNELAQVLTEVV
YSNGGFYLPKGGTTSGDATTAYANSVFNIFQAVSANINRILGVNSNTCNNLTVKELQR
SLYDNCYRTSTVDPAFVDTFYGYLRKHFSMMI"

ORIGIN

1 agagctttgc ctaatgtgat tcgtatgata tccgcatga ttttgggttc tgaacatgaa
61 aattgttgta ctaacttga ccgttattac agattatgta acgagttggc acaagtgcta
121 actgaagtag tctattctaa cggtggttt tatttaaac caggtggtac gacatcaggt
181 gatgcaacga cagcttatgac caattctggt ttaacatct tcaagcagt tagtgctaac
241 attaatcgca ttttgggcgt taatagcaat acttgcaata acttgacagt taaagagttg
301 caacgctcat tgtatgacaa ttgtatcgc actagtactg tagaccagc cttgtagac

361 acgttttatg gctacttacg caaacatttc tctatgatga tt

//

LOCUS MN312593 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate YY10 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312593

VERSION MN312593

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="YY10"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88213"

/translation="RALPNMIRMISAMILGSKHVNCCSSSDRYRSCNELAQVLTEMV

YSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQLQR

KLYDCCYRSSSVSQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 agagctttgc ccaacatgat tagaatgatt tctgcaatga tacttggttc taagcacggt

61 aactgctgta gtctagcga taggtactac agatcgtgta acgaactagc acaagtttta

121 acagaaatgg ttattcaaa cgggtgcttt tatgtcaaac ctggtggtac tacatctggt

181 gatgctacaa cagcttatgc caattcagtt ttaacatat ttcaggcaac tagtgcaat

241 gttaacgct tgttgagtgt tgatagtaat acatgtaaca acatagaagt taagcaattg

301 cagcgttaagt tgatgattg ttgtatcga tcatcaagtg tggatcaaag tttgttgaa

361 gactactttg gttaccttcg taagcacttt tctatgatga tt

//

LOCUS MN312594 409 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus 512 isolate YY16 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312594

VERSION MN312594

KEYWORDS .

SOURCE Bat coronavirus 512

ORGANISM Bat coronavirus 512

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Coronavirinae; unclassified Coronavirinae.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Bat coronavirus 512"

/mol_type="genomic RNA"

/isolate="YY16"

/host="Scotophilus kuhlii"

/db_xref="taxon:2664421"

/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88214"

/translation="CDRALPNMIRMISAMILGSKHVNCCSSSDRYRLCNELAQVLTE

MVYSNGGFYVKPGGTTSGDATTAYANSVFNIFQATSANVNRLLSVDSNTCNNIEVKQL

QRKLYDCCYRSSSVDQSFVEEYFGYLRKHFSMMI"

ORIGIN

1 atgtgataga gctttgccca acatgattag aatgatttct gcaatgatac ttggttctaa

61 gcacgttaac tgctgtagtt ctacgatag gtactacaga ttgtgtaacg aactagcaca

121 agtttaaca gaaatggtt attcaaacgg tggctttat gtcaaacctg gtggtactac

181 atctggtgat gctacaacag cttatgcaa ttcagtttt aacatattc aggcaactag

241 tgcaaatgtt aaccgcttgt tgagtgtga tagtaataca tgtaacaaca tagaagttaa

301 gcaattgcag cgtaagtgt atgattgtg ttatcgatca tcaagtgtgg atcaaagttt

361 tgttgaagag tactttggtt accttgcga acactttct atgatgatt

//

LOCUS MN312595 375 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 6233 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312595

VERSION MN312595

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="6233"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>375
/gene="RdRp"
CDS <1..>375
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88215"
/translation="DRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEM
VMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGKNKIADKYVRNLQ
HRLYECLYRNRDVEDHEFVDELRL"

ORIGIN

1 t g t a g a g c c a t g c c t a a c a t g c t t a g g a t a a t g g c c t c t c t g t t c t t g c t c g c a a a c a
61 t a g c a c t t g c t g t a a c t t g t c a c a c c g t t t c t a c a g a t t a g c t a a t g a g t g t g c g c a a g t
121 a t t a a g t g a g a t g g t c a t g t g t g g c g g c t c a c t a t a t g t t a a c c a g g t g g a a c g t c a t c
181 c g g t g a t g c t a c a a c t g c t t a t g c t a a t a g t g t c t t t a a c a t t t g t c a a g c t g t t a c a g c
241 c a a t g t a a t g c a c t t c t t t c a a c t g a t g g t a c a a g a t a g c t g a c a a g t a c g t c c g c a a
301 t c t a c a a c a c a g g c t t t a t g a g t g t c t c t a t a g a a t a g g g a t g t t g a t c a t g a a t t c g t
361 g g a t g a g t t a c g c t a

//

LOCUS MN312596 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 6255 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312596

VERSION MN312596

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="6255"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88216"

/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV

MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH

RLYECLYRNRDVEDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttggtgta acttatcaca ccgtttctac aggttagcta acgagtgtgc gcaagtatta
121 agtgagatgg tcattgtgtg cggtcacta tatgttaaac caggtggaac atcatccggt
181 gatgctacaa ctgcttatgc taatagtgc tttaacattt gtcaagctgt tacagccaac
241 gtaaatgcac tctttcaac tgatgtaaat aagatagctg acaagtatgt cgcgaatcta
301 caacacaggc tctatgagtg tctctataga aatagggatg ttgatcacga atcgtggat
361 gagttttacg cttacctgcg taaacatttc tctatgatga tt

//

LOCUS MN312597 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 6266 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312597

VERSION MN312597

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..402
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="6266"
/host="unknown"
/db_xref="taxon:1508227"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88217"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatage
61 acttgctgta actgtcaca ccgtttctac agattagcta atgagtgtgc gcaagtatta
121 agtgagatgg tcattgtggt cggctcacta tatgttaaac caggtggaac gtcacccggt
181 gatgctacaa ctgcttatgc taatagtgtc ttaacattt gcaagctgt tacagccaat
241 gtaaagcac ttcttcaac tgatgtaac aagatagctg acaagtacgt ccgcaatcta
301 caacacaggc tttatgagtg tctctataga aatagggatg ttgatcatga atcgtggat
361 gagttttacg cttacctgcg taaacattc tctatgatga tt

//

LOCUS MN312598 378 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 6278 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312598
VERSION MN312598
KEYWORDS .

SOURCE Bat SARS-like coronavirus
ORGANISM Bat SARS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.
REFERENCE 1 (bases 1 to 378)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 378)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers

source 1..378
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="6278"
/host="Hipposideros armiger"
/db_xref="taxon:1508227"
/country="China"
gene <1..>378
/gene="RdRp"
CDS <1..>378
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88218"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL
QHRLYECLYRNRDVDHEFVDECTL"

ORIGIN

1 tgtgatagag ccatgcctaa catgcttagg ataatggcct ctctgttct tgctcgcaa
61 catagcactt gctgtaactt gtcacaccgt ttctacaggt tagctaata gtagtgcgcaa
121 gtattaagtg agatggcat gtagtgccgcg tcgctatatg taaaccagg tggaaatca
181 tccggtgatg ctacaactgc ttatgctaata agtgtcttta acattgtca agctgttaca
241 gccaatgtaa atgcactcct ttcaactgat ggtaacaaga tagctgacaa gtacgtccgc
301 aatctacaac acaggettta tgagtgtctc tatagaaata gggatgttga tcatgaattc
361 gtggatgagt gtacgcta

//

LOCUS MN312599 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 6301 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312599

VERSION MN312599

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..371
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="6301"
/host="unknown"

/db_xref="taxon:1508227"
/country="China"
gene <1..>371
/gene="RdRp"
CDS <1..>371
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88219"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL
QHRLYECLYRNRDVEDHEFVDE"

ORIGIN

1 atgtgataga gccatgcta acatgcttag gataatggcc tctctgttc ttgctgcaa
61 acatagcact tgttgaact taccacaccg ttctacagg ttagctaacg agtgtgcgca
121 agtattaagt gagatggta tgtgtggcgg ctcactatat gttaaaccag gtggaacatc
181 atccggtgat gctacaactg cttatgctaa tagtgtcttt aacattgtc aagctgttac
241 agccaacgta aatgcacttc ttcaactga tgtaataag atagctgaca agtatgtccg
301 caatctaaa cacaggtct atgagtgtct ctatagaaat agggatgtg atcacgaatt
361 cgtggatgag t

//

LOCUS MN312600 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 6303 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312600

VERSION MN312600

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="6303"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88220"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttgctgta acttgtcaca ccgtttctac agattagcta atgagtgtgc gcaagtatta
121 agtgagatgg tcattgtgtg cggtcacta tatgttaaac caggtggaac gtcacccggt
181 gatgctacaa ctgcttatgc taatagtgtc tttaacattt gtcaagctgt tacagccaat
241 gtaaatgcac ttctttcaac tgatggtaac aagatagctg acaagtacgt ccgcaatcta
301 caacacaggc tttatgagtg tctctataga aatagggatg ttgatcatga atcgtggat
361 gagttttacg cttactgcg taaacatttc tctatgatga tt

//

LOCUS MN312601 400 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 6500 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312601

VERSION MN312601

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 400)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..400

/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="6500"
/host="Aselliscus stoliczkanus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>400

/gene="RdRp"

CDS <1..>400

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88221"

/translation="DRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEM

VMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQ
HRLYECLYRNRDVDHEFVDEFYAYLRKHFSM"

ORIGIN

1 tgacagacc atgcctaaca tgcttaggat aatggcctct cttgttctg ctgcaaaca
61 tagcacttgc tgaactgt cacaccgtt ctacaggta gctaatgagt gtgcgcaagt
121 attaagtgag atggcatgt gtggcggctc actatatgtt aaaccagggtg gaacatcatc
181 cggatgatgct acaactgctt atgctaatag tgccttaac atttgtcaag ctgttacage
241 caatgaaat gcaactcttt caactgatgg taacaagata gctgacaagt acgtccgcaa
301 tctacaacac aggccttatg agtgtctcta tagaaatagg gatgttgatc atgaattcgt
361 ggatgagttt tacgcttacc tgcgtaaaca tttctctatg

//

LOCUS MN312602 399 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 6530 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312602

VERSION MN312602

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="6530"

/host="Rhinolophus affinis"

/db_xref="taxon:1508227"

/country="China"

gene <1..>399

/gene="RdRp"

CDS <1..>399

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88222"

/translation="AMPNMLRIMASLV LARKHSTCCNLSHRFYRLANCAQVLSEMVM

CGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQHR

LYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 agccatgect aacatgctta ggataatggc ctctcttgtt cttgctcgca aacatagcac
61 ttgctgtaac ttatcacacc gtttctacag gttagctaac gagggtgcgc aagtattaag

121 tgatggtc atgtgtggcg gctcactata tgtaaacca ggtggaacat catccggtga
181 tgctacaact gcttatgcta atagtgtctt taacattgt caagctgta cagccaacgt
241 aatgcactt ctttcaactg atggaataa gatagctgac aagtatgtcc gcaatctaca
301 acacaggctc tatgagtgc tctatagaaa tagggatgtt gatcacgaat tcgtggatga
361 gttttacgct tactctgcgta aacatttctc tatgatgat

//

LOCUS MN312603 406 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 6533 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312603

VERSION MN312603

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="6533"

/host="Aselliscus stoliczkanus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88223"

/translation="DRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSEM

VMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQ

HRLYECLYRNRDVEDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 gtgatagagc catgcctaac atgettagga taatggcctc tctgttctt getcgcaaac

61 atagcacttg ctgtaactg tcacaccgtt tctacagggt agctaagag tgtgcgcaag

121 tattaagtga gatggatcag tgtggcggct cactatatgt taaaccagggt ggaacatcat

181 ccggtgatgc tacaactgct tatgctaata gtgtctttaa catttgtaa gctgttacag

241 ccaatgtaaa tgcactcctt tcaactgatg gtaacaagat agctgacaag tacgtccgca

301 atctacaaca caggctttat gagtgtctct atagaaatag ggatgttgat catgaattcg

361 tggatgagtt ttacgcttac ctgcgtaaac atttctctat gatgat

//

LOCUS MN312604 405 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 7325 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312604

VERSION MN312604

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="7325"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88224"

/translation="DRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEM

VMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGKNKIADKYVRNLQ

HRLYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 gtgatagagc catgcctaac atgettagga taatggcctc tctgttctt gctcgcaaac
61 atagcaactg ctgtaacttg tcacaccggt tetacagggt agctaagag tgtgcgcaag
121 tattaagtga gatggctatg tgtggcggt cactatatgt taaaccagg ggaacatcat
181 ccggtgatgc tacaactgct tatgctaata gtgtcttaa ctttgtcaa gctgttacag
241 ccaatgtaaa tgcactcctt tcaactgatg gtaacaagat agctgacaag tacgtccgca
301 atctacaaca caggetttat gagtgtctct atagaaatag ggatgttgat catgaattcg
361 tggatgagtt ttacgcttac ctgcgtaaac atttctctat gatga

//

LOCUS MN312605 403 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 7326 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312605

VERSION MN312605

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="7326"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>403

/gene="RdRp"

CDS <1..>403

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88225"

/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSEMV

MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH

RLYECLYRNRDVDHEFVDEFYAYLRKHFMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttgctgta actgtcaca cegtttctac aggttagcta atgagtgtgc gcaagtatta
121 agtgagatgg tcattgtgg cggtcacta tatgttaaac caggtggaac atcatccggt
181 gatgctaaa ctgcttatgc taatagtgc ttaacattt gtcaagctgt tacagccaat
241 gtaaatgac tctttcaac tgaaggtaac aagatagctg acaagtacgt cgcgaatcta
301 caacacaggc tttatgagtg tctctataga aatagggatg ttgatcatga atcgtggat
361 gagttttacg cttacctgcg taacatttc tctatgatga ttc

//

LOCUS MN312606 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 7330 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312606

VERSION MN312606

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="7330"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88226"

/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSEMV

MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH

RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttgctgta actgtgcaca ccgtttctac aggttagcta atgagtgtgc gcaagtatta
121 agtgagatgg tcatgtgtgg cggctcacta tatgttaaac caggtggaac atcatccggt
181 gatgetacaa ctgcttatgc taatagtgtc ttaacattt gtcaagctgt tacagccaat
241 gtaaatgcac tccttcaac tgatggtaac aagatagctg acaagtacgt ccgcaatcta
301 caacacaggc tttatgagt tctctataga aatagggatg ttgatcatga atcgtggat
361 gagttttacg cttactgcg taaacattc tctatgatga tt

//

LOCUS MN312607 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 7335 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312607

VERSION MN312607

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="7335"
/host="Aselliscus stoliczkanus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88227"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttgctgta acttgtcaca ccgtttctac aggttagcta atgagtgtgc gcaagtatta
121 agtgagatgg tcattgtggt cggctcacta tatgttaaac caggtggaac atcatccggt
181 gatgctacaa ctgcttatgc taatagtgtc tttaacattt gtcaagctgt tacagccaat
241 gtaaagtgcac tctttcaac tgatggtaac aagatagctg acaagtacgt ccgcaatcta
301 caacacaggc tttatgagtg tctctataga aatagggatg ttgatcatga atcgtggat
361 gagttttacg cttacctgcg taaacatttc tctatgatga tt

//

LOCUS MN312608 381 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7519 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312608

VERSION MN312608

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 381)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 381)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..381
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7519"
/host="Hipposideros pomona"
/db_xref="taxon:1805463"
/country="Laos"
gene <1..>381
/gene="RdRp"
CDS <1..>381
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88228"
/translation="KCDRAMPNMTRIFASLILARKHGTCCTRGERFYRLANCAQVLS
EMVLCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANVSALLSANGNKIVDNYVRN
LQRQLYENVYRSVHVDHKFVEEYYS"

ORIGIN

1 aaatgtgata gagcaatgcc taatatgaca cgtatttcg cgtcattgat tttggctagg
61 aaacatggta cttgtgttac gcgtggtgaa cgattttacc gcttggttaa tgagtgcgct
121 caagtattga gcgaatggt gttgtgtggt ggtgcgttgt atgtgaaacc agtggtgaca
181 tcactggcg acgtactac cgcgtatgca aattctgtct tcaatatctg ccaggctgtt
241 actgctaag ttagcgtct actgtcagct aatggaaca agatttgga caactacgtg
301 cgcaactac agcgtcaatt gtatgagaat gtgtatcgta gtgtcatgt tgatcataag
361 tttgtagaag aatactacag c

//

LOCUS MN312609 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 7521 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312609

VERSION MN312609

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7521"
/host="Hipposideros pomona"
/db_xref="taxon:1805463"
/country="Laos"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88229"
/translation="RAMPNMTRIFASLILARKHGTCCTRGERFYRLANECAQVLSEMV
LCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANVSALLSANGNKIVDNYVRNLQR
QLYENVYRSVHVDHKFVVEEYYSFLRKHFSSMMI"

ORIGIN

1 agagcaatgc ctaatatgac acgtatttc gcgctcattga ttttgctag gaaacatggt
61 acttgttga cgcgtggtga acgattttac cgcctggcta atgagtgcgc tcaagtattg
121 agcgaaatgg tgtgtgtgg tggcgcttg tatgtgaaac caggtggtac atcatctggc
181 gacgctacta ccgctgatgc aaattctgtc tcaatatct gccaggctgt tactgctaat
241 gttagcgtc tactgtcagc taatgaaac aagattgtgg acaactacgt gcgcaactta
301 cagcgtcaat tgtatgagaa tgtgtatcgt agtggtcatg ttgatcataa gttttagtaa
361 gaatactaca gcttttgag gaaacatttt tctatgatga tt

//

LOCUS MN312610 375 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7522 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312610
VERSION MN312610
KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9
ORGANISM Rousettus bat coronavirus HKU9
Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.
REFERENCE 1 (bases 1 to 375)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..375
/organism="Rousettus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7522"
/host="Rousettus sp."
/db_xref="taxon:694006"

gene /country="Laos"
<1..>375
CDS /gene="RdRp"
<1..>375
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88230"
/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE
MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 aatgtgatag agctatgcct aattgttgc gtatattgc cagccttatt ttagctcgta
61 agcatgcaac ttgttgaat gcctctgaga gattttatag gttggctaataaat gaatgcgcgc
121 aggttttgag tgagatggtc ctctcggag gaggtttta cgtgaaacct ggtggtacca
181 gtatgggaga tccacaact gcatatgcta acagtgttt taacatctgt caagctgtta
241 gtgtaactt taatacctt ttatctatag acggttaata gatttacacc acctatgtgc
301 aggaactgca gaggcggta tacttgggta tataccgtag taatactgtg gataatgagt
361 tagttctgga ttatt

//

LOCUS MN312611 375 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus GCCDC1 isolate 7523 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312611

VERSION MN312611

KEYWORDS .

SOURCE Bat coronavirus GCCDC1

ORGANISM Bat coronavirus GCCDC1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375
/organism="Bat coronavirus GCCDC1"
/mol_type="genomic RNA"
/isolate="7523"
/host="unknown"
/db_xref="taxon:2126098"
/country="Laos"
gene <1..>375
/gene="RdRp"
CDS <1..>375
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88231"
/translation="KCDRAMPNLLRIFASLILARKHSTCCNTSERFYRLANECAQVLS
EIVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSRDGNKIYNSYVQG
LQRRLYLGIYRTHTVDMELVTEY"

ORIGIN

1 aaatgata gagctatgcc taattgcta cgcattttg ctagcttaat attggcacgt
61 aagcatagta cgtgttcaa tacttctgaa cggttctacc gtcttgctaa tgagtgtgcg
121 caagttctca gtgaaattgt cctctgcggt ggcggggttt atgtaagcc cggtggaact
181 agcagtggcg attctactac agcgtacgct aatagtgtgt ttaacatag ccaagctgtg
241 agcgccaate tcaacacatt tttgtctagg gatggcaata agatatataa ctcttatgtg
301 cagggcttac agaggcgcct ttactgggt atatatcgta cacacacagt tgacatggaa
361 ttggttacgg agtat

//

LOCUS MN312612 373 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus GCCDC1 isolate 7525 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312612

VERSION MN312612

KEYWORDS .

SOURCE Bat coronavirus GCCDC1

ORGANISM Bat coronavirus GCCDC1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373

/organism="Bat coronavirus GCCDC1"

/mol_type="genomic RNA"

/isolate="7525"

/host="Eonycteris spelaea"

/db_xref="taxon:2126098"

/country="Laos"

gene <1..>373

/gene="RdRp"

CDS <1..>373

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88232"

/translation="CDRAMPNLLRIFASLILARKHSTCCNTSERFYRLANECAQVLSE

IVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSRDGNKIYNSYVQGL

QRRLYLGIIYRTHTVDMELVRS"

ORIGIN

1 aatgtgatag agctatgcct aatttgctac gcattttgc tagcttaata ttggcagca
61 agcatagtac gtgttgaat acttctgaac ggtctaccg tcttgctaat gagtgtgcgc
121 aagtgtcag tgaattgtc ctctgcggtg gcgggttcta tgtaagcct ggtggaacta
181 gcagtggcga ttactacta gcgtacgcta atagtgtgtt taacatatgt caagctgtga
241 gcgcaaatct caacacattt ttgctagag atggcaataa gatataaac tcttatgtgc
301 agggcttaca aaggcgcctg tacctgggta tatatcgtac gcacacagtt gacatggaat
361 tggtagcgag tat

//

LOCUS MN312613 377 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat coronavirus GCCDC1 isolate 7530 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312613

VERSION MN312613

KEYWORDS .

SOURCE Bat coronavirus GCCDC1

ORGANISM Bat coronavirus GCCDC1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..377

/organism="Bat coronavirus GCCDC1"

/mol_type="genomic RNA"

/isolate="7530"

/host="Eonycteris spelaea"

/db_xref="taxon:2126098"

/country="Laos"

gene <1..>377

/gene="RdRp"

CDS <1..>377

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88233"

/translation="CDRAMPNLLRIFASLILARKHSTCCNTSERFYRLANECAQVLSE

IVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSRDGNKIYNSYVQGL

QRRLYLGIIYRTHTVDMELVTEYT"

ORIGIN

1 atgtgataga gctatgceca atttgctacg catttttgc agcttaatat ttggcagtaa
61 acatagtagc tgttgaata cttctgagcg gttctaccg cttgctaag agtgtgcgca
121 agttcttagt gaaattgtcc tctgcggtgg cgggtttat gtaagcctg gtggaactag

181 cagtggcgat tctactacag cgtacgctaa tagtgtgttt aacatatgtc aagctgtgag
241 tgccaatctc aacacatttt tgtctagggga tggcaataag atatataact cttatgtgca
301 gggcttacag aggcgcctgt acttgggtat atactgtaca cacacagtag acatggaatt
361 ggttacggag tatacaa

//

LOCUS MN312614 379 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7531 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312614

VERSION MN312614

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..379

/organism="Rousettus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7531"

/host="Rousettus sp."

/db_xref="taxon:694006"

/country="Laos"

gene <1..>379

/gene="RdRp"

CDS <1..>379

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88234"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANCAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYRSNTVDNELVLDYIT"

ORIGIN

1 aatgtgatag agctatgcct aatttattgc gtatattgc tagccttatt ttactctgta
61 agcatgcaac ttgttgcaat gcctctgaga gattttatag attggctaag gaatgcgcgc
121 aggttttgag tgagatggtc ctctgtggag gagggttta cgtgaaacct ggtggtacca
181 gtatgggaga tccacaact gcatatgcta acagtgtttt caacattgt caagctgta
241 gtgtaatct taatacttt ttatctatag acggtataa gatttacacc acttatgtgc
301 aggaattgca gaggcgggta tacttgggta tataccgtag taactactgt gataatgagt
361 tagttctgga ttatataac

//

LOCUS MN312615 375 bp RNA linear VRL 07-NOV-2019
DEFINITION Roussetus bat coronavirus HKU9 isolate 7538 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312615

VERSION MN312615

KEYWORDS .

SOURCE Roussetus bat coronavirus HKU9

ORGANISM Roussetus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 375)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..375

/organism="Roussetus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7538"

/host="Roussetus sp."

/db_xref="taxon:694006"

/country="Laos"

gene <1..>375

/gene="RdRp"

CDS <1..>375

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88235"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 aatgtgatag agctatgcct aattattgc gtatattgc cagccttatt ttagctcgta
61 agcatgcaac ttgttgcaat gcctctgaga ggtttatag gttggctaat gaatgcgctc
121 aggttctgag tgaatggtc ctctgtggag gagggttta cgtgaaacct ggtggtacta
181 gtagtgagaga tccacaact gcatatgcta acagtgttt taacattgt caagctgta
241 gtgctaactc taacacctt tatctatag atgtaataa gattacact acttatgttc
301 aggaactgca gaggcgggta tacttgggta ttaccgtag taacactgtg gataatgagt
361 tagttttaga ttatt

//

LOCUS MN312616 373 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussetus bat coronavirus HKU9 isolate 7540 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312616

VERSION MN312616

KEYWORDS .

SOURCE Roussettus bat coronavirus HKU9

ORGANISM Roussettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373

/organism="Roussettus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7540"

/host="Eonycteris spelaea"

/db_xref="taxon:694006"

/country="Laos"

gene <1..>373

/gene="RdRp"

CDS <1..>373

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88236"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 tgtgatagag ctatgcctaa tttgttgegt atattgcca gcctatttt agctcgtaag
61 catgcaactt gttgcaatgc ctctgagaga tttataggt tggctaatga atgcgcgcag
121 gttttgagt agatggctct ctgtggagga gggttttacg tgaacctgg tggaccagt
181 agtggagatt ccacaactgc atatgccaac agtgttttta acatctgtca agctgttagt
241 gctaatctta atacctttt atctatagac ggtaataaga ttacaccac ctatgtgcag
301 gaactgcaga ggcgggtata cttgggtata taccgtagta acactgtgga taatgagtta
361 gttctggatt att

//

LOCUS MN312617 370 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussettus bat coronavirus HKU9 isolate 7541 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312617

VERSION MN312617

KEYWORDS .

SOURCE Roussettus bat coronavirus HKU9

ORGANISM Roussettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Rousettus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7541"
/host="Rousettus sp."
/db_xref="taxon:694006"
/country="Laos"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88237"
/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANCAQVLSE
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QRRLYLGIYRSNTVDNELVLD"

ORIGIN

1 tgtgatagag ctatgcctaa tttgttgcgt atatttgcca gtcttatttt agctcgtaag
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121 gttttgagtg agatggttct ttgtggagga gggttttacg tgaacctgg tggtagcagt
181 agtggagatt ccacaactgc atatgctaac agtgtttca acatctgtca agctgttagt
241 gctaatactta ataccttttt atctatagac ggtaataaga ttacaccac ctatgtgcag
301 gaactgcaga ggcggttata cttgggtata taccgtagta aactgtgga taatgagta
361 gttctggatt

//

LOCUS MN312618 374 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7542 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312618

VERSION MN312618

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374
/organism="Rousettus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7542"
/host="Rousettus sp."
/db_xref="taxon:694006"
/country="Laos"
gene <1..>374
/gene="RdRp"
CDS <1..>374
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88238"
/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE
MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 atgtgataga gctatgccta attgttgcg tatattgcc agccttatt tagctcgtaa
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121 ggttttgagt gagatggttc ttgtggagg agggtttac gtgaaacctg gtggtaccag
181 tagtgagat tccacaactg catatgctaa cagtgtttc aacatctgc aagctgtag
241 tgctaatctt aataccttt tatctataga cgtaataag attacacca cctatgtgca
301 ggaactgcag aggcgggtat acttggtat ataccgtagt aacactgtgg ataatgagtt
361 agttctggat tatt

//

LOCUS MN312619 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Rousettus bat coronavirus HKU9 isolate 7553 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312619

VERSION MN312619

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..374
 /organism="Rousettus bat coronavirus HKU9"
 /mol_type="genomic RNA"
 /isolate="7553"
 /host="Eonycteris spelaea"
 /db_xref="taxon:694006"
 /country="Laos"
gene <1..>374
 /gene="RdRp"
CDS <1..>374
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88239"
 /translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE
 MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
 QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 atgtgataga gctatgccta atttgttgcg tatattgcc agccttatt tagctcgtaa
61 gcatgcaact tgttgaatg cctctgagag atttatagg ttggctaatg aatgcgcgca
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181 tagtggagat tcacaactg catatgctaa cagtgtttt aacatctgtc aagctgttag
241 tgctaatctt aataccttt tatctataga cgtaataag atttacacca cctatgtgca
301 ggaactgcag aggcgggtat acttgggtat ataccgtagt aacactgtgg ataatgagtt
361 agttctggat tatt

//

LOCUS MN312620 374 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7558 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312620

VERSION MN312620

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374
 /organism="Rousettus bat coronavirus HKU9"

/mol_type="genomic RNA"
/isolate="7558"
/host="Rousettus sp."
/db_xref="taxon:694006"
/country="Laos"
gene <1..>374
/gene="RdRp"
CDS <1..>374
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88240"
/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE
MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYLGIRSNNTVDNELVLDY"

ORIGIN

1 atgtgataga gctatgccta atttgttgcg tatatttggc agccttattt tagctcgtaa
61 gcatgcaact tgttgcaatg cctctgagag atttatagg ttggctaag aatgcgcgca
121 ggttttgagt gagatggcc tctgtggagg agggttttat gtgaaacctg gtggtaccag
181 tagtggagat tccacaactg catatgctaa cagtgtttt aacatctgtc aggctgttag
241 tgctaacttt aataccttt tatctataga cggtataaag attacacca cctatgtgca
301 ggaactgcag aggcgggtat acttgggtat ataccgtagt aacactgtgg ataatgagtt
361 agttctggat tatt

//

LOCUS MN312621 372 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7559 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312621

VERSION MN312621

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..372
/organism="Rousettus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7559"
/host="Rousettus sp."
/db_xref="taxon:694006"
/country="Laos"

gene <1..>372
/gene="RdRp"
CDS <1..>372
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88241"
/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE
MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYLGIYRSNTVDNELVLD"

ORIGIN

1 atgtgataga gctatgccta atctgttgcg tatattgcc agccttatt tagctcgtaa
61 gcacgaact tgttgcaatg cctctgagag atttatagg ttggctaag aatgcgcgca
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181 tagtggagat tctacaactg catatgctaa cagtgtttc aacatctgtc aagctgttag
241 tgctaatctt aatacctttt tatctataga cgtaataag atttacacca cctatgtgca
301 ggaactgcag aggcgggtat acttgggtat ataccgtagt aacactgtgg ataatgagtt
361 agttctggat ta

//

LOCUS MN312622 376 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus GCCDC1 isolate 7564 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312622

VERSION MN312622

KEYWORDS .

SOURCE Bat coronavirus GCCDC1

ORGANISM Bat coronavirus GCCDC1

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376
/organism="Bat coronavirus GCCDC1"
/mol_type="genomic RNA"
/isolate="7564"
/host="Eonycteris spelaea"
/db_xref="taxon:2126098"
/country="Laos"

gene <1..>376
/gene="RdRp"

CDS <1..>376
/gene="RdRp"
/codon_start=3

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88242"
/translation="CDRAMPNLLRIFASLILARKHSTCCNTSERFYRLANCAQVLSE
IVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSRDGNKIYNSYVQGL
QRRLYLGIYRTHTVDMELVTEYT"

ORIGIN

1 aatgtgatag agctatgccc aattgctac gcattttgc tagcttaata ttggcacgta
61 aacatagtag gtgttgcaat acttctgagc ggttctaccg tcttgctaat gagtgtgcgc
121 aagttcttag tgaattgtc ctctgcggtg gcgggtttta tgtaagcct ggtggaacta
181 gcagtggcga ttactacta gcgtacgcta atagtgtgtt taacatatgt caagctgtga
241 gtgccaatct caacacattt ttgtctaggg atggcaataa gatataaac tcttatgtgc
301 agggcttaca gaggcgctg tacttgggta tatatcgtac acacacagta gacatggaat
361 tggttacgga gtatac

//

LOCUS MN312623 374 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus GCCDC1 isolate 7566 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312623

VERSION MN312623

KEYWORDS .

SOURCE Bat coronavirus GCCDC1

ORGANISM Bat coronavirus GCCDC1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374

/organism="Bat coronavirus GCCDC1"

/mol_type="genomic RNA"

/isolate="7566"

/host="Eonycteris spelaea"

/db_xref="taxon:2126098"

/country="Laos"

gene <1..>374

/gene="RdRp"

CDS <1..>374

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88243"

/translation="CDRAMPNLLRIFASLILARKHSTCCNTSERFYRLANCAQVLSE

IVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSRDGNKIYNSYVQGL

QRRLYLGIYRTHTVDMELVTEYT"

ORIGIN

1 tgtgatagag ctatgccaa tttgctacgc attttgcta gcttaatt ggcacgtaag
61 catagtacgt gttgcaatac ttcagaacgg tttaccgctc ttgctaata ga gttgctgcaa
121 gttctcagtg aaattgtcct ctgctgggtgc gggttttacg ttaagcctgg tggaactagc
181 agtggcgatt ctactacagc gtacgctaata agtgtgttta atatatgca agctgtgagc
241 gccaatctca acacatntt gcttagagat ggcaataaga tatataactc ttatgtgcag
301 ggcttacaga ggcgctgta cttgggtata tatcgtacac acacagtaga catggaattg
361 gttacggagt atac

//

LOCUS MN312624 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussetus bat coronavirus HKU9 isolate 7569 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312624

VERSION MN312624

KEYWORDS .

SOURCE Roussetus bat coronavirus HKU9

ORGANISM Roussetus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374

/organism="Roussetus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7569"
/host="Roussetus sp."
/db_xref="taxon:694006"
/country="Laos"

gene <1..>374

/gene="RdRp"

CDS <1..>374

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88244"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANCAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 aatgtgatag agctatgcct aatttattgc gtatattgc tagccttatt ttagctcgta
61 agcagcgaac ttgttcaat gcctctgaga gattttatag gttggctaataaatgacgcgc
121 aggttttgag tgagatggtc ctctgtggag gagggttta cgtgaaacct ggtggtacca
181 gtatgggaga tccacaact gcatatgcta atagtgttt taacattgt caagctgtta

241 gtgctaactct taataccttt ttatctatag acggtaataa gatttacacc acttatgtgc
301 aggaattaca gaggcgttta tacttgggta tataccgtag taactctgtg gataatgagt
361 tagttctgga ttat

//

LOCUS MN312625 380 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7570 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312625

VERSION MN312625

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 380)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 380)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..380

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="7570"

/host="Hipposideros pomona"

/db_xref="taxon:1805463"

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gene <1..>380

/gene="RdRp"

CDS <1..>380

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88245"

/translation="CDRAMPNMTRIFASLILARKHGTCCTRGERFYRLANCAQVLSE

MVLCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANVSALLSANGNKIVDNYVRNL

QRQLYENVYRSVHVDHKFVEEYYS"

ORIGIN

1 aatgtgatag agcaatgcct aatatgacac gtatttcgc gtcattgatt ttggctagga
61 aacatggtag ttgtgtacg cgtgggtaac gattttaccg cctggctaag gtagtgcgctc
121 aagtattgag cgaatgggtg ttgtgtgggt gtgcggtgta tgtgaaacca ggtggtacat
181 catctggcga cgctactacc gcgtatgcaa attctgtctt caatatctgc caggctgtta
241 ctgctaattg tagcgtctca ctgtcagcta atggaaaca gattgtggac aactacgtgc
301 gcaactaca gcgtcaattg tatgagaatg tgtatcgtag tttcatgtt gatcataagt
361 ttgtagaaga atactacagc

//

LOCUS MN312626 373 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussetus bat coronavirus HKU9 isolate 7575 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312626

VERSION MN312626

KEYWORDS .

SOURCE Roussetus bat coronavirus HKU9

ORGANISM Roussetus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373

/organism="Roussetus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7575"

/host="unknown"

/db_xref="taxon:694006"

/country="Laos"

gene <1..>373

/gene="RdRp"

CDS <1..>373

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88246"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANCAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIRSNNTVDNELVLD"

ORIGIN

1 aatgtatag agctatgcct aattattgc gtatattgc tagccttatt ttagctcgta

61 agcatgcaac ttgttgcaat gcctctgaga gatttatag attggctaat gaatgcgcgc

121 aggtttgag tgagatggtc ctctgtggag gagggttta cgtgaaacct ggtggtacca

181 gtatggaga tccacaact gcatatgcta acagtgttt caacattgt caagctgta

241 gtgtaact taatacctt ttatctatag acgtaataa gatttacacc acttatgtc

301 aggaattgca gaggcggta tacttgggta tataccgtag taactctg gataatgag

361 tagtctgga tta

//

LOCUS MN312627 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussetus bat coronavirus HKU9 isolate 7579 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312627

VERSION MN312627

KEYWORDS .

SOURCE Roussettus bat coronavirus HKU9

ORGANISM Roussettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374

/organism="Roussettus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7579"

/host="Roussettus sp."

/db_xref="taxon:694006"

/country="Laos"

gene <1..>374

/gene="RdRp"

CDS <1..>374

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88247"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANCAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYRSNTVDNELVLDY"

ORIGIN

1 atgtgataga gctatgccta atttgttgcg tatattgcc agtcttatt tagctcgtaa
61 gcatgcaact tgttgaatg cctctgagag atttatagg ttggctaatg aatgcgcgca
121 ggttttgagt gagatggtc tttgtgagg agggtttac gtgaaacctg gtggtaccag
181 tagtggagat tcacaactg catatgctaa cagtgtttc aacatctgtc aagetgttag
241 tgctaatctt aataccttt tatctataga cgtaataag atttacacca cctatgtgca
301 ggaactgcag aggcgggtat acttgggtat ataccgtagt aacactgtgg ataagagtt
361 agttctggat tatt

//

LOCUS MN312628 379 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussettus bat coronavirus HKU9 isolate 7585 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312628

VERSION MN312628

KEYWORDS .

SOURCE Roussettus bat coronavirus HKU9

ORGANISM Roussettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..379

/organism="Rousettus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7585"

/host="Rousettus sp."

/db_xref="taxon:694006"

/country="Laos"

gene <1..>379

/gene="RdRp"

CDS <1..>379

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88248"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANCAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYRSNTVDNELVLDYIT"

ORIGIN

1 atgtgataga gctatgccta atttattgcg tatattgct agccttatt tagctcgtaa
61 gcacgcaact tgttgcaatg cctctgagag atttatagg ttggctaag aatgcgcgca
121 ggttttgagt gagatgggcc tctgtggagg agggttttac gtgaaacctg gtggtaccag
181 tagtggagat tcacaactg catatgctaa tagtgtttt aacattgtc aagctgttag
241 tgctaattct aataccttt tatctataga cggtataag atttacacca cttatgtgca
301 ggaattacag aggcgtttat acttgggtat ataccgtagt aatactgtgg ataagagtt
361 agttctggat tataatact

//

LOCUS MN312629 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Rousettus bat coronavirus HKU9 isolate 7587 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312629

VERSION MN312629

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..374

/organism="Rousettus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7587"

/host="Rousettus sp."

/db_xref="taxon:694006"

/country="Laos"

gene <1..>374

/gene="RdRp"

CDS <1..>374

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88249"

/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYLGIIYSNTVDNELVLDY"

ORIGIN

1 atgtgataga gctatgccta atttgttgcg tatattgcc agccttatt tagctcgtaa
61 gcatgcaact tgttgaatg cctctgagag atttatagg ttggctaatg aatgcgcgca
121 ggttttgagt gagatgtcc tctgtggagg agggttttac gtgaaacctg gtggtaccag
181 tagtggagat tcacaactg catatgcaa cagtgtttt aacatctgtc aagctgttag
241 tgctaatctt aataccttt tatctataga cgtaataag atttacacca cctatgtgca
301 ggaactgcag aggcggttat acttgggtat ataccgtagt aacctgtgg ataatgagtt
361 agttctggat tatt

//

LOCUS MN312630 372 bp RNA linear VRL 07-NOV-2019

DEFINITION Rousettus bat coronavirus HKU9 isolate 7588 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312630

VERSION MN312630

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..372
 /organism="Rousettus bat coronavirus HKU9"
 /mol_type="genomic RNA"
 /isolate="7588"
 /host="Rousettus sp."
 /db_xref="taxon:694006"
 /country="Laos"
gene <1..>372
 /gene="RdRp"
CDS <1..>372
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88250"
 /translation="CDRAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSE
 MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSVDGNKIYTTYVQEL
 QRRLYLGIIYRSNTVDNDLVLD"

ORIGIN

1 atgtgataga gctatgcca acctttgcg catctttgct agccttatat tagctcgtaa
61 gcattcaact tgttgaatg cgtctgagcg gttttatagg ctggctaata aatgtgcgca
121 ggttttgagt gaaatgtcc tctgcggagg tgggttttac gtaaagcctg gtggtagtag
181 tagtggtagt tccactactg cttatgctaa cagtgtttt aacatctgtc aagcagtag
241 tgtaacctt aatacatcc ttctgtgga tgtaataag attacacta cttatgtaca
301 agaattgcag cggcggttat actaggtat ataccgtagt aatacagtg acaatgatt
361 ggtttggat ta

//

LOCUS MN312631 378 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7590 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312631

VERSION MN312631

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 378)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 378)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..378
 /organism="Rousettus bat coronavirus HKU9"
 /mol_type="genomic RNA"

/isolate="7590"
/host="Rousettus sp."
/db_xref="taxon:694006"
/country="Laos"
gene <1..>378
/gene="RdRp"
CDS <1..>378
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88251"
/translation="CDRAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSE
MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYLGIIYRSNTVDNELVLDYYN"

ORIGIN

1 tgtgatagag ctatgcctaa tttgttgcgt atatttgcca gccttatttt agctcgtaag
61 catgcaactt gttgcaatgc cctctgagaga ttttataggt tggctaata atgcgcgcag
121 gttttgagtg agatggttct ctgtggagga gggttttacg tgaaacctgg tggtagcagt
181 agtggagatt ccacaactgc atatgctaac agtgttttca acatctgtca agctgttagt
241 gctaatactta ataccttttt atctatagac ggtaataaga ttacaccac ctatgtgcag
301 gaactgcaga ggcgggtata cttgggtata taccgtagta aactgtgga taatgagta
361 gttctggatt attataac

//

LOCUS MN312632 566 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7905 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312632

VERSION MN312632

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 566)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 566)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..566
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7905"
/host="Rhinolophus sp."
/db_xref="taxon:1805463"
/country="China"

gene <1..>566

CDS /gene="RdRp"
<1..>566
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88252"
/translation="MASLVLARKHTTCCSLSHRFYRLANECAQVLSEMVMCGGSLYVK
PGGTSSGDATTAYANSVFNICQAITANVNALLSTDGNKIADKYIRNLQHRLYECLYRN
RDVDIDFVNEFYAYLRKHFSMMILSDDAVVCFNSTYASQGLVASIKNFKSVLYYQNNV
FMSEAKCWTETDLTKGPHEFCSQHTMMI"

ORIGIN

1 tatggcctca cttgttcttg ctcgcaaaaca tacgacttgt thtagcttgt cgcaccggtt
61 ctataggta gtaacagagt gtcacaagt attaagttaa atgggtatgt gtggcggttc
121 actatatgtt aaaccagggtg gaacctcadc aggagatgcc acaactgctt atgctaatag
181 tgtctttaat atctgtcaag ctattacggc aatgttaat gcactttat ctactgatgg
241 taacaaaatt gctgataaat acattcgcaa tttgcaacat agactttatg agtgtctcta
301 taggaataga gatgtgaca tagactttgt gaatgagttt tacgcatatt tgcgtaaaca
361 ctctcaatg atgatactct ctgacgatgc tgtcgtgtgt ttaatagca cctacgcgctc
421 tcaaggttta gtggctagca taaagaactt taagtcagtt ctttattacc aaaataatgt
481 tttatgtct gaagcaaaat getggactga gactgacctt actaaaggac ctcatgaatt
541 ttgctctcaa catactatga tgattc

//

LOCUS MN312633 597 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7907 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312633

VERSION MN312633

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 597)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 597)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..597
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7907"
/host="Rhinolophus sp."
/db_xref="taxon:1805463"
/country="China"
gene <1..>597
/gene="RdRp"

CDS <1..>597
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88253"
/translation="CDRAMPNMLRIMASLVLARKHTTCCSLSHRFYRLANECAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGNKIADKYIRNL
QHRLYECLYRNRDVIDDFVNEFYAYLRKHFSMMILSDDAVVCFNSTYASQGLVASIKN
FKSVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMMI"

ORIGIN

1 tgtgacagag ccatgcctaa tatgcttaga attatggcct cacttgttct tgctcgcaaa
61 catacgactt gttgtagctt gtgcaccgt ttctataggt tagctaacga gtgtgcacaa
121 gtattaagtg aaatggttat gtgtggcggg tcaactatg ttaaaccagg tggaaacctca
181 tcaggagatg ccacaactgc ttatgctaata agtgccttta atatctgtca agctattacg
241 gcaaatgtta atgcactttt atctactgat ggtaacaaaa ttgctgataa atacattegc
301 aatttgcaac atagacttta tgagtgtctc tataggaata gagatgttga catagacttt
361 gtgaatgagt ttacgcata ttgcgtaaa cacttctcaa tgatgatact ctctgacgat
421 gctgtcgtgt gtttaaatg cacctacgcg tctcaaggtt tagtggctag cataaagaac
481 ttaagtacg ttctttatta ccaaataat gttttatgt ctgaagcaaa atgctggact
541 gagactgacc ttactaaagg acctcatgaa ttttgcctc aacatactat gatgatt

//

LOCUS MN312634 592 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7909 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312634

VERSION MN312634

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 592)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 592)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..592
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7909"
/host="Rhinolophus affinis"
/db_xref="taxon:1805463"
/country="China"

gene <1..>592
/gene="RdRp"

CDS <1..>592

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88254"
/translation="RAMPNMLRIMASLVLARKHTTCCSLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGNGKIADKYIRNLQH
RLYECLYRNRDVIDDFVNEFYAYLRKHFSMMILSDDAVVCFNSTYASQGLVASIKNFK
SVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMMI"

ORIGIN

1 agagccatgc ctaatatgct tagaattatg gcctcacttg ttcttgctcg caaacatagc
61 acttgttgta gcttgctgca ccgtttctat aggttagcta acgagtgtgc acaagtatta
121 agtgaaatgg ttatgtgtgg cggttcacta tatgttaaac caggtggaac ctcacagga
181 gatgccacaa ctgcttatgc taatagtgtc ttaatatct gtcaagctat tacggcaaat
241 gtaatgcac tttatctac tgatggtaac aaaattgctg ataaatacat tcgcaattg
301 caacatagac tttatgagtg tctctatagg aatagagatg ttgacataga cttgtggaat
361 gagttttacg catatttgcg taaacacttc tcaatgatga tactctctga cgatgctgtc
421 gtgtgttta atagcaccta cgcgtctcaa ggtttagtgg ctagcataaa gaactttaag
481 tcagttctt attacaaaa taatgtttt atgtctgaag caaaatgctg gactgagact
541 gaccttacta aaggacctca tgaatttgc tctcaacata ctatgatgat tc

//

LOCUS MN312635 588 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7921 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312635

VERSION MN312635

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 588)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 588)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..588
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7921"
/host="Rhinolophus sp."
/db_xref="taxon:1805463"
/country="China"
gene <1..>588
/gene="RdRp"
CDS <1..>588
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88255"
/translation="AMPNMLRIMASLVLARKHTTCCSLSHRFYRLANCAQVLSEMVM
CGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGDKIADKYIRNLQHR
LYECLYRNRDVIDDFVNEFYAYLRKHFSMMILSDDAVVCFNSTYASQGLVASIKNFKS
VLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMMI"

ORIGIN

1 gccatgccta atatgcttag aattatggcc tcaattgttc ttgctcgcaa acatacgact
61 tgtttagct tgcgcaccg tttctatagg ttagctaacg agtgtgcaca agtattaagt
121 gaaatggta tgtgtgccc ttcactatat gtaaaccag gtggaacctc atcaggagat
181 gccacaactg cttatgctaa tagtgtcttt aatatctgtc aagctattac ggcaaatgtt
241 aatgcacttt tatctactga tggtacaaca attgctgata aatacattcg caattgcaa
301 catagacttt atgagtgtct ctataggaat agagatgttg acatagactt tgtgaatgag
361 ttttacgcat atttgcgtaa acacttctca atgatgatac tctctgacga tgctgtcgtg
421 tgtttaata gcacctacgc gtctcaaggt ttagtggcta gcataaagaa cttaagtca
481 gttctttatt accaaaataa tgttttatg tctgaagcaa aatgctggac tgagactgac
541 ctactaaag gacctcatga atttgctct caacatacta tgatgatt

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LOCUS MN312636 589 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7924 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312636

VERSION MN312636

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 589)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 589)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..589
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7924"
/host="Rhinolophus sp."
/db_xref="taxon:1805463"
/country="China"
gene <1..>589
/gene="RdRp"
CDS <1..>589
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88256"
/translation="RAMPNMLRIMASLVLARKHTTCCSLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGNKIADKYIRNLQH
RLYECLYRNRDVIDDFVNEFYAYLRKHFSMMILSDDAVVCFNSTYASQGLVASIKNFK
SVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMM"

ORIGIN

1 agagccatgc ctaatatget tagaattatg gcctcacttg ttcttgetcg caaacatagc
61 acttggtgta gcttgctgca ccgtttctat aggttagcta acgagtgtgc acaagtatta
121 agtgaaatgg ttatgtgtgg cggttcacta tatgttaaac caggtggaac ctcacagga
181 gatgccacaa ctgcttatgc taatagtgtc tttaatatct gtcaagctat tacggcaaat
241 gtaaatgcac tttatctac tgatggtaac aaaattgctg ataaatacat tcgcaatttg
301 caacatagac ttatgagtg tctctatagg aatagagatg ttgacataga ctttgtgaat
361 gagttttacg catatttgcg taaacacttc tcaatgatga tacttctga cgatgctgtc
421 gtgtgttta atagcaccta cgcgtctcaa ggtttagtgg ctagcataaa gaactttaag
481 tcagttcttt attaccaaaa taatgtttt atgtctgaag caaaatgctg gactgagact
541 gaccttacta aaggacctca tgaattttgc tctcaacata ctatgatga

//

LOCUS MN312637 376 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141335 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312637

VERSION MN312637

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141335"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>376
/gene="RdRp"
CDS <1..>376
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"

/protein_id="QGA88257"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRNL
QHRLYECLYRNRDVDHEFVDECM"

ORIGIN

1 tgtgatagag ccatgcctaa tatgcttaga atcatggcct ccctgttct tgctcgcaaa
61 catagcactt gttgtaactt gtcacatcgt ttctatagat tagctaata ggtgcacaa
121 gtattaagt agatggcat ggtggcggc tcattatag tgaaccagg tggaacatca
181 tccggtgatg ccacaactgc ttatgctaag agtgtgttta acatctgtca agcagtaaca
241 gctaagttaa atgcacttct ctaactgat ggtaataaga ttgctgataa gtacatccgc
301 aacctcaac atagacttta tgagtgtctc tatagaaata gagatgtaga tcatgagttc
361 gtggatgaat gtagtc

//

LOCUS MN312638 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141341 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312638

VERSION MN312638

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141341"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>359

/gene="RdRp"

CDS <1..>359

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88258"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRNL
QHRLYECLYRNRDVDHE"

ORIGIN

1 aatgtgatag agccatgcct aatagctta gaatcatggc ttccttggt cttgctcgca
61 aacatagcac ttgtgtaac ttgtcacatc gtttctatag attagctaag gagggtgcac
121 aagtattaag tgagatggtc atgtgtggcg gctcattata tgtgaaacca ggtggaacat
181 catccgggtga tgccacaact gcttatgcta atagtgtgtt taacatctgt caagcagtaa
241 cagctaagt aatgcactt ctctcaactg atggtaataa gattgctgat aagtacatcc
301 gcaacctca acatagactt tatgagtgc tctatagaaa tagagatgta gatcatgag

//

LOCUS MN312639 346 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141342 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312639

VERSION MN312639

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 346)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 346)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..346

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141342"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>346

/gene="RdRp"

CDS <1..>346

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88259"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRNL

QHRLYECLYRNRD"

ORIGIN

1 atgtgataga gccatgccta atatgcttag aatcatggct tcccttggtc ttgctcgcaa
61 acatagcact ttgtgtaact ttgtcacatc gtttctataga ttagctaag agtgtgcaca
121 agtattaagt gagatggca tgtgtggcgg ctattatat gtgaaaccag gtggaacatc
181 atccgggtgat gccacaactg ctatgctaa tagtgtgtt aacatctgtc aagcagtaac
241 agctaagtga aatgcacttc tctcaactga tggaataag attgctgata agtacctccg
301 caacctcaa catagacttt atgagtgtct ctatagaat agagat

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LOCUS   MN312640           367 bp  RNA   linear  VRL 07-NOV-2019
DEFINITION  Bat SARS-like coronavirus isolate 141344 RNA-dependent RNA
            polymerase (RdRp) gene, partial cds.
ACCESSION  MN312640
VERSION    MN312640
KEYWORDS   .
SOURCE     Bat SARS-like coronavirus
ORGANISM   Bat SARS-like coronavirus
            Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
            Orthocoronavirinae; Betacoronavirus; Sarbecovirus.
REFERENCE  1 (bases 1 to 367)
AUTHORS    Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
            Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE      Origin and cross-species transmission of bat coronaviruses in China
JOURNAL    Unpublished
REFERENCE  2 (bases 1 to 367)
AUTHORS    Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
            Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE      Direct Submission
JOURNAL    Submitted (13-AUG-2019) Key laboratory of special pathogens and
            biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
            Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
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FEATURES             Location/Qualifiers
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                        /organism="Bat SARS-like coronavirus"
                        /mol_type="genomic RNA"
                        /isolate="141344"
                        /host="Rhinolophus sinicus"
                        /db_xref="taxon:1508227"
                        /country="China"
     gene                <1..>367
                        /gene="RdRp"
     CDS                 <1..>367
                        /gene="RdRp"
                        /codon_start=3
                        /product="RNA-dependent RNA polymerase"
                        /protein_id="QGA88260"
                        /translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYILANECAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYIRNL
QHRLYECLYRNRDVEDHEFV"
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ORIGIN
1 aatgtgatag agccatgcct aatatgetta gaatcatggc ttccttggt cttgctcgca
61 aacatagcac ttgtgtaac ttgtcacatc gtttctatat attagctaat gagggtgcac
121 aagtattaag tgagatggtc atgtgtggcg gtcattata tgtgaaacca ggtggaacat
181 catccgggta tgccacaact gcttatgcta atagtgtgtt taacatctgt caagcagtaa
241 cagctaatgt aatgcactt ctctcaactg atggtaataa gattgctgat aagtacatcc
301 gcaaccttca acatagactt tatgagtgc tctatagaaa tagagatgta gatcatgagt
361 tcgtgga
```

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//
LOCUS   MN312641           367 bp  RNA   linear  VRL 07-NOV-2019
DEFINITION  Bat SARS-like coronavirus isolate 141350 RNA-dependent RNA
            polymerase (RdRp) gene, partial cds.
ACCESSION  MN312641
```

VERSION MN312641

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..367

/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141350"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>367

/gene="RdRp"

CDS <1..>367

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88261"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRNL

QHRLYECLYRNRDVEDHEFV"

ORIGIN

1 aatgtgatag agccatgcct aatagctta gaatcatggc ttccttggt cttgctcgca
61 aacatagcac ttgttgtaac ttgtcacatc gtttctatag attagctaat gagtgtgcac
121 aagtattaag tgataggtgc atgtgtggcg gctcattata tgtgaaacca ggtggaacat
181 catccggtga tgccacaact gcttatgcta atagtgtgtt taacatctgt caagcagtaa
241 cagctaatgt aatgcactt ctctcaactg atggtataaa gattgctgat aagtacatcc
301 gcaaccttca acatagactt tatgagtgtc tctatagaaa tagagatgta gatcatgagt
361 tcgtgga

//

LOCUS MN312642 349 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141352 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312642

VERSION MN312642

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 349)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 349)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..349

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141352"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>349

/gene="RdRp"

CDS <1..>349

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88262"

/translation="KCDRAMPNMLRIMASLV LARKHSTCCNL SHRFYRLANECAQVLS

EMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRN

LQHRLYECLYRNRD"

ORIGIN

1 aaatgtgata gagccatgcc taatatgctt agaatcatgg ctcccttgt tcttgcctgc

61 aaacatagca ctgtgtgtaa cttgtcacat cgtttctata gattagctaa tgagtgtgca

121 caagtattaa gtgagatggt catgtgtggc ggctcattat atgtgaaacc agtggaaca

181 tcacccgtg atgccacaac tgcttatgct aatagtgtgt ttaacatctg tcaagcagta

241 acagctaataa taaatgcact tctctcaact gatggttaata agattgctga taagtacatc

301 cgcaaccttc aacatagact ttatgagtgt ctctatagaa atagagatg

//

LOCUS MN312643 362 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141369 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312643

VERSION MN312643

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..362
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141369"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>362
/gene="RdRp"
CDS <1..>362
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88263"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYIRNL
QHRLYECLYRNRDVEDHEF"

ORIGIN

1 aatgtgatag agccatgcct aatatgetta gaatcatggc ttccttgtt cttgctcgca
61 aacatagcac ttgtgtaac ttgtcacatc gtttctatag attagctaat gagggtgcac
121 aagtattaag tgagatggtc atgtgtggcg gtcattata tgtgaaacca ggtggaacat
181 catccgggta tgccacaact gcttatgcta atagtgtgtt taacatctgt caagcagtaa
241 cagctaattg aatgcactt ctctcaactg atggtaataa gattgctgat aagtacatcc
301 gcaaccttca acatagactt tatgagtgc tctatagaaa tagagatgta gatcatgagt
361 tc

//

LOCUS MN312644 362 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141375 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312644

VERSION MN312644

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..362
 /organism="Bat SARS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="141375"
 /host="Rhinolophus sinicus"
 /db_xref="taxon:1508227"
 /country="China"
gene <1..>362
 /gene="RdRp"
CDS <1..>362
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88264"
 /translation="KCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLS
EMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRN
LQHRLYECLYRNRDVDHE"

ORIGIN

1 aaatgtgaca gagccatgcc taatatgctt agaatcatgg ctcccttgt tcttgctcgc
61 aaacatagca ctgtgtgtaa ctgtcacat cgtttctata gattagctaa tgagtgtgca
121 caagtattaa gtgagatggt catgtgtggc ggctcattat atgtgaaacc agtggaaca
181 tcatccggtg atgccacaac tgcttatgct aatagtgtgt ttaacatctg tcaagcagta
241 acagctaataa taaatgcact tctctcaact gatggtaata agattgctga taagtacatc
301 cgcaaccttc aacatagact ttatgagtgt ctctatagaa atagagatgt agatcatgag
361 tt

//

LOCUS MN312645 379 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141376 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312645

VERSION MN312645

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 379)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..379
 /organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"
/isolate="141376"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>379
/gene="RdRp"
CDS <1..>379
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88265"
/translation="KCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLS
EMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRN
LQHRLYECLYRNRDVDHEFVDEFM"

ORIGIN

1 aaatgtgata gagccatgcc taatatgctt agaatcatgg cttcccttgt tcttgctcgc
61 aaacatagca cttgttgtaa cttgtcacat cgtttctata gattagctaa tgagtgtgca
121 caagtattaa gtgagatggt catgtgtggc ggctcattat atgtgaaacc agtggaaca
181 tcatcgggtg atgccacaac tgcttatgct aatagtgtgt ttaacatctg tcaagcagta
241 acagctaataa taaatgcact tctctcaact gatggttaata agattgctga taagtacatc
301 cgcaaccttc aacatagact ttatgagtgt ctctatagaa atagagatgt agatcatgag
361 ttcgtggatg aatttatgc

//

LOCUS MN312646 376 bp RNA linear VRL 07-NOV-2019
DEFINITION Pipistrellus bat coronavirus HKU5 isolate 141427 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312646

VERSION MN312646

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376
/organism="Pipistrellus bat coronavirus HKU5"
/mol_type="genomic RNA"
/isolate="141427"
/host="Pipistrellus abramus"
/db_xref="taxon:694008"
/country="China"

gene <1..>376
/gene="RdRp"
CDS <1..>376
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88266"
/translation="KCDRAMPNMCRIFASLILARKHSTCCTNIDRFYRLANCAQVLS
EYVLCGGGYVVKPGGTSSGDATTA YANSVFNILQATTANVSALMGANGTIVDKEVKD
MQFELYVNVYRKSQDPKFDVDRY"

ORIGIN

1 aaatgtgac gcgctatgcc caatatgtgt agaattttg cttctctcat attggetcgt
61 aagcatagta cttgctgtac taatattgat agattttacc gcttagcaaa tgagtgcgct
121 caagtgctta gtgagtatgt ctttggggc ggtggttatt atgtcaaacc tgggtgaacc
181 agtagcggcg atgcaaccac agcttagcgc aatagtgtat ttaacattct gcagcgaca
241 actgcaaatg ttatgctact tatgggcgct aatggcaaca ccattgttga caaagaagt
301 aaggacatgc agtttgagct gtatgtaaat gttacagaa agagccagcc tgatcctaa
361 ttcgtggaca ggtatt

//

LOCUS MN312647 372 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 141431 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312647

VERSION MN312647

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 372)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..372
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="141431"
/host="Hypsugo sp."
/db_xref="taxon:1805463"
/country="China"

gene <1..>372
/gene="RdRp"

CDS <1..>372
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88267"
/translation="CDRAMPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKIIRDM
QFDLYVNVYRNTTPDPKFVVDKY"

ORIGIN

1 tgtgatagag ctatgcctaa catgtgtagg attttgcac ctctaattct tgcacgcaag
61 catggaactt gctgcactac tagagataga ttctaccgct tagctaata gtcgctcag
121 gtactaagcg aatacgttct ctgtggcgga ggtattacg tcaaacctgg aggaaccagc
181 agcggcgatg ccaccacagc ctatgccaat agtggtttta acattttgca ggcgacaacc
241 gcaaatgta gtgcacttat ggggtgcta ggcaacaaaa ttgtgataa agagattagg
301 gacatgcaat ttgatttga tgtcaatgtt tacaggaata ctactcctga tcctaaattt
361 gtagataaat at

//

LOCUS MN312648 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Pipistrellus bat coronavirus HKU5 isolate 141441 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312648

VERSION MN312648

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370

/organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"

/isolate="141441"

/host="Pipistrellus abramus"

/db_xref="taxon:694008"

/country="China"

gene <1..>370

/gene="RdRp"

CDS <1..>370

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88268"

/translation="DRAMPNMCRIFASLILARKHGTCTPTDRFYRLANECAQVLSEY
VLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNMIVDKIIRDMQ
FELYVNVYRKSQDPKFVIAI"

ORIGIN

1 tgatagagct atgcctaata tgtgtagaat tttgcatct ctcatttgg ctcgtaagca
61 tggtaactgt tgactccta ctgacagatt ttaccgctta gccaatgagt gcgctcaggt
121 gcttagtgag tatgtcttgt gtgggtgggg ttattacgtc aaacctgggtg gaaccagtag
181 cggcgaatgca accactgctt acgccaatag tgttttaac atattgcaag cgacaactgc
241 aaatgtagt gcacttatgg gcgctaaccg caacatgatt gttgacaaag aagttaagga
301 catgcagttt gagctgtatg taaatgttta caggaaatcg caaccgctc caaaattcgt
361 gatcgtata

//

LOCUS MN312649 368 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate 141442 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312649

VERSION MN312649

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..368

/organism="Pipistrellus bat coronavirus HKU5"
/mol_type="genomic RNA"
/isolate="141442"
/host="Pipistrellus abramus"
/db_xref="taxon:694008"
/country="China"

gene <1..>368

/gene="RdRp"

CDS <1..>368

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88269"

/translation="KCDRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANCAQVLS

EYVLCGGGYVVKPGGTSSGDATTA YANSVFNILQATTANVSALMGANGNTIVDKEVKD

MQFELYVNVYRKSQDPKFFV"

ORIGIN

1 aaatgtgata gagctatgcc taatatgtgc agaattttg cttccctcat attagcccg
61 aagcatagta cttgtgtac taacctgat agattttacc gcttagcaaa tgagtgcgct
121 caagtgetta gtgagtatgt cctttgtgce ggtggttatt acgtcaaac ttgtgggacc
181 agtagcggcg atgcaaccac agcttacgcc aatagtgtct ttaacattct gcaggcgaca

241 accgcaaatg ttagtgcact tatgggcgct aatggcaaca ctattgttga caaagaagtt
301 aaggacatgc agtttgagct gtatgtaaat gttacagaa agagccaacc tgatcctaaa
361 ttcgtgga

//

LOCUS MN312650 371 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141455 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312650

VERSION MN312650

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 371)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..371

/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141455"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>371

/gene="RdRp"

CDS <1..>371

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88270"

/translation="DRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEM

VMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQ

HRLYECLYRNRDVEDHEFVDEL"

ORIGIN

1 gtgatagagc catgctaac atgcttagga taatggcctc tctgttctt gctcgcaaac
61 atagcacttg ctgtaacttg tcacaccgtt tctataggct agctaacgag tgtgcgcaag
121 tgtaagtga gatggtcatg tgtggcgct cgctatatgt taaaccaggt ggaacatcat
181 cgggtgatgc tacaactgct tatgctaata gtgtcttaa catttgcata gctgttacag
241 ccaatgtaa tgcactctt tcaactgatg gtaataagat agctgacaag tatgtccgca
301 atctacagca caggctctac gagtgtctct atagaaatag agatgttgat catgaattcg
361 tggatgagtt a

//

LOCUS MN312651 366 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141456 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312651

VERSION MN312651

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..366

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141456"

/host="Rhinolophus sp."

/db_xref="taxon:1508227"

/country="China"

gene <1..>366

/gene="RdRp"

CDS <1..>366

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88271"

/translation="DRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEM

VMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQ

HRLYECLYRNRDVEDHEFVDE"

ORIGIN

1 gatagagcca tgcctaacaat gcttaggata atggcctctc ttgttcttgc tcgcaaacat
61 agcacttgct gtaacttgtc acaccgttcc tataggctag ctaacgagtg tgcgcaagtg
121 ttaagtgaga tggatcatgtg tggcggctcg ctatatgtta aaccaggtgg aacatcatcg
181 ggtgatgcta caactgctta tgctaatagt gtctttaaca tttgtcaagc tgttacagcc
241 aatgtaaagc cacttcttc aactgatggt aataagatag ctgacaagta tgcgccaat
301 ctacagcaca ggctctacga gtgtctctat agaaatagag atgttgatca tgaattcgtg
361 gatgag

//

LOCUS MN312652 327 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141460 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312652

VERSION MN312652

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 327)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 327)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..327

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141460"

/host="Rhinolophus pusillus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>327

/gene="RdRp"

CDS <1..>327

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88272"

/translation="CDRAMPNMLRIMASLV LARKHSTCCNLSHRFYRLANECAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYIRNL

QHRLYEC"

ORIGIN

1 tgtgatagag ccatgctaa tatgcttaga atcatggctt ccctgttct tgetcgcaa
61 catagcactt gttgtaact gtacatcgt ttctatagat tagctaatga ggtgcacaa
121 gtattaagt agatggcat ggtggcggc tcattatag tgaaccagg tggaaatca
181 tccggtgat ccacaactgc ttatgctaat agtgtgttta acatctgtca agcagtaaca
241 gctaatgtaa atgcacttct ctaactgat ggtaataaga ttgctgataa gtacatccgc
301 aacctcaac atagacttta tgagtgt

//

LOCUS MN312653 374 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141464 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312653

VERSION MN312653

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 374)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 374)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..374
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141464"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>374
/gene="RdRp"
CDS <1..>374
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88273"
/translation="DYPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQ
VLSEVMVCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY
VRNLQHRLYECLYRNRDGDHEF"

ORIGIN

1 tgattatcca aatgtgata gagccatgcc taacatgctt aggataatgg cctctctgt
61 tcttgctcgc aaacatagca cttgctgtaa cttgctcacac cgtttctata ggctagctaa
121 cgagtggtcgc caagtgttaa gtgagatggt catgtgtggc ggctcgctat atgttaaacc
181 aggtggaaca tcacgggtg atgctacaac tgcttatgct aatagtgtct ttaacattg
241 tcaagctgtt acagccaatg taaatgcaact tcttcaact gatggttaata agatagctga
301 caagtatgtc cgcaatctac agcacaggct ctacgagtgt ctctatagaa atagagatgg
361 tgatcatgaa ttgc

//

LOCUS MN312654 364 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141470 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312654

VERSION MN312654

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..364

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141470"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>364

/gene="RdRp"

CDS <1..>364

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88274"

/translation="KCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLS

EMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRN

LQHRLYECLYRNRDVDHEF"

ORIGIN

1 aaatgtgata gagccatgcc taacatgctt aggataatgg cctctctgt tcttgctcgc
61 aaacatagca cttgctgtaa cttgtcacac cgtttctata ggctagctaa cgagtgtgcg
121 caagtgttaa gtgagatggt catgtgtggc ggctcgtat atgttaaacc agtggaaca
181 tcateggtg atgctacaac tgcttatgt aatagtgtct ttaacattg tcaagctgt
241 acagccaatg taaatgcact tcttcaact gatggaata agatagctga caagtatgc
301 cgcaatctac agcacagct ctacaggtgt ctctatagaa atagagatgt tgatcatgaa
361 ttcg

//

LOCUS MN312655 370 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141567 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312655

VERSION MN312655

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..370
 /organism="Bat SARS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="141567"
 /host="Rhinolophus sp."
 /db_xref="taxon:1508227"
 /country="China"
gene <1..>370
 /gene="RdRp"
CDS <1..>370
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88275"
 /translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
 MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNL
 QHRLYECLYRNRDVEDHEFVDE"

ORIGIN

1 atgtgataga gccatgcta acatgcttag gataatggcc tctctgttc ttgctcgcaa
61 acatagcact tgctgtaact tgcacaccg ttctatagg ctgctaacc agtgtgcgca
121 agtgttaagt gagatggta tgtgtggcgg ctcgctatat gtaaaccag gtggaacatc
181 atcgggtgat gctacaactg cttatgctaa tagtgtctt aacattgtc aagctgttac
241 agccaatgta aatgcacttc ttcaactga tgtaataag atagctgaca agtatgtccg
301 caatctacag cacaggctct acgagtgtct ctatagaaat agagatgttg atcatgaatt
361 cgtggatgag

//

LOCUS MN312656 382 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141569 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312656

VERSION MN312656

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 382)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 382)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..382
 /organism="Bat SARS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="141569"

/host="Rhinolophus pusillus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>382
/gene="RdRp"
CDS <1..>382
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88276"
/translation="DYPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQ
VLSEMVCMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY
VRNLQHRLYECLYRNRDVDHEFVDE"

ORIGIN

1 tgattatcct aatgtgata gagccatgcc taacatgctt aggataatgg cctctctgt
61 tcttgctcgc aaacatagca cttgctgtaa cttgtcacac cgtttctata ggctggctaa
121 cgagtgtgcg caagtgttaa gtgagatggt catgtgtggc ggctcgctat atgttaaacc
181 aggtggaaca tcatcgggtg atgtacaac tgcttatgct aatagtgtct ttaacattg
241 tcaagctgtt acagccaatg taaatgcaact tcttcaact gatggaata agatagctga
301 caagtatgtc cgcaatctac agcacaggct ctacgagtgt ctctatagaa atagagatgt
361 tgatcatgaa ttcgtggatg ag

//

LOCUS MN312657 384 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141570 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312657

VERSION MN312657

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 384)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 384)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..384
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141570"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>384
/gene="RdRp"

CDS <1..>384
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88277"
/translation="DYPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQ
VLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKC
VRNLQHRLYECLYRNRDVDHEFVDE"

ORIGIN

1 ttgattatcc aaaatgtgat agagccatgc ctaacatgct taggataatg gcctctcttg
61 ttcttgctcg caaacatagc acttgctgta actgtgcaca cgtttctat aggctagcta
121 acgagtgtgc gcaagtgtta agtgagatgg tcatgtgtgg cggtcgcgta tatgttaaac
181 caggtggaac atcatcgggt gatgctacaa ctgcttatgc taatagtgtc ttaacattt
241 gtcaagctgt tacagccaat gtaaatgcac tctttcaac tgatggtaat aagatagctg
301 acaagtgtgt cgcgaatcta cagcacaggc tctacagtg tctctataga aatagagatg
361 ttgatcatga attcgtggat gagt

//

LOCUS MN312658 370 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141575 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312658

VERSION MN312658

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141575"
/host="Hipposideros pomona"
/db_xref="taxon:1508227"
/country="China"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88278"

/translation="CDRAMPNMLRIMASLV LARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL
QHRLYECLYRNRDVDHEFVDE"

ORIGIN

1 atgtgataga gccatgccta acatgcttag gataatggcc tctctgttc ttgctcgsaa
61 acatagcact tgctgtaact tgcacaccg ttctatagg ctgactaacg agtgtgcgca
121 agtgtaagt gagatggca tgtgtggcgg ctcgctatat gttaaaccag gtggaacatc
181 atcgggtgat gctacaactg cttatgctaa tagtgtcttt aacattgtc aagctgttac
241 agccaatgta aatgcactc ttcaactga tgtaataag atagctgaca agtatgtccg
301 caatctacag cacaggctct acgagtgtct ctatagaaat agagatgttg atcatgaatt
361 cgtggatgag

//

LOCUS MN312659 383 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141577 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312659

VERSION MN312659

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 383)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 383)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..383

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141577"

/host="Hipposideros pomona"

/db_xref="taxon:1508227"

/country="China"

gene <1..>383

/gene="RdRp"

CDS <1..>383

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88279"

/translation="IIPKCDRAVPNMLRIMASLV LARKHSTCCNLSHRFYRLANCAQ

VLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY
VRNLQHRLYECLYRNRDVDHEFVDG"

ORIGIN

1 tgattatccc taaatgtgat agagccgtgc ctaacatgct taggataatg gcctctcttg

61 ttcttgctcg caaacatagc acttgctgta actgtcaca ccgtttctat aggctagcta
121 acgagtgtgc gcaagtgtta agtgagatgg tcatgtgtgg cggctcgcta tatgttaaac
181 caggtggaac atcatcgggt gacgctacaa ctgcttatgc taatagtgc tttacattt
241 gtcaagctgt tacagccaat gtaaagcac ttcttcaac tgatggtaat aagatagctg
301 acaagtatgt ccgcaatcta cagcacaggc tctacgagtg tctctataga aatagagatg
361 ttgatcatga atcgtggat ggg

//

LOCUS MN312660 383 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141579 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312660

VERSION MN312660

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 383)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 383)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..383
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141579"
/host="Rhinolophus pusillus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>383
/gene="RdRp"
CDS <1..>383
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88280"
/translation="IIPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQ
VLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY
VRNLQHRLYECLYRNRDVDHEFVDE"

ORIGIN

1 tgattatccc caaatgtgat agagccatgc ctaacatgct taggataatg gcctctcttg
61 ttcttgctcg caaacatagc acttgctgta actgtcaca ccgtttctat aggctagcta
121 acgagtgtgc gcaagtgtta agtgagatgg tcatgtgtgg cggctcgcta tatgttaaac
181 caggtggaac atcatcgggt gatgctacaa ctgcttatgc taatagtgc tttacattt
241 gtcaagctgt tacagccaat gtaaagcac ttcttcaac tgatggtaat aagatagctg
301 acaagtatgt ccgcaatcta cagcacaggc tctacgagtg tctctataga aatagagatg

361 ttgatcatga attcgtggat gag
//
LOCUS MN312661 382 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141582 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312661
VERSION MN312661
KEYWORDS .
SOURCE Bat SARS-like coronavirus
ORGANISM Bat SARS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.
REFERENCE 1 (bases 1 to 382)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 382)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..382
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141582"
/host="Hipposideros pomona"
/db_xref="taxon:1508227"
/country="China"
gene <1..>382
/gene="RdRp"
CDS <1..>382
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88281"
/translation="DYPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQ
VLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY
VRNLQHRLYECLYRNRDVDHEFVDE"

ORIGIN

1 tgattatcct aaatgtgata gagccatgcc taacatgctt aggataatgg cctctcttgt
61 tcttctcgc aaacatagca cttgctgtaa cttgtcacac cgttctata ggctagctaa
121 cgagtgtgcg caagtgttaa gtagatggt catgtgtggc ggctcgtat atgttaaacc
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241 tcaagctgtt acagccaatg taaatgcact tcttcaact gatggttaata agatagctga
301 caagtatgct cgcaatctac agcacaggct ctacgagtgt ctctatagaa atagatgatg
361 tgatcatgaa ttcgtggatg ag

//
LOCUS MN312662 373 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 141598 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312662

VERSION MN312662

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 373)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..373

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141598"

/host="Rhinolophus pusillus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>373

/gene="RdRp"

CDS <1..>373

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88282"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVDHEFVDE"

ORIGIN

1 aatgtgatag agccatgcct aacatgctta ggataatggc ctctcttgtt cttgctgca
61 aacatagcac ttgctgtaac ttgtcacacc gttctatag gctagctaac gtagtgcgcg
121 aagtgttaag tgagatggc atgtgtggcg gctcgctata tgtaaacca ggtggaacat
181 catcgggtga tgctacaact gcttatgcta atagtgtctt taacattgt caagctgta
241 cagccaatgt aatgcaact cttcaactg atggaataa gatagctgac aagtatgtcc
301 gcaactaca gcacagctc tacgagtgtc tctatagaaa tagagatgtt gatcatgaat
361 tcgtgatga gtt

//

LOCUS MN312663 370 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141599 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312663

VERSION MN312663

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 370)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..370
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="141599"
/host="Rhinolophus pusillus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>370
/gene="RdRp"
CDS <1..>370
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88283"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNL
QHRLYECLYRNRDVEDHEFVD"

ORIGIN

1 aatgtgatag agccatgcct aacatgctta ggataatggc ctctcttgtt cttgctcgca
61 aacatagcac ttgctgtaac ttgtcacacc gttctatag gctagctaac gagtgtgcgc
121 aagtgttaag tgataggttc atgtgtggcg gctcgctata tgtaaacca ggtggaacat
181 catcggtga tgctacaact gcttatgcta atagtgtctt taacattgt caagctgta
241 cagccaatgt aaatgcactt cttcaactg atggaataa gatagctgac aagtatgtcc
301 gcaatctaca gcacaggctc tacgaggtc tctatagaaa tagagatgtt gatcatgaat
361 tcgtggatga

//

LOCUS MN312664 382 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 141600 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312664

VERSION MN312664

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 382)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 382)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..382

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="141600"

/host="Rhinolophus pusillus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>382

/gene="RdRp"

CDS <1..>382

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88284"

/translation="DYPKCDRAMPNMLRIMASLVLARRHSTCCNLSHRFYRLANCAQ
VLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY
VRNLQHRLYECLYRNRDVEDHEFVDE"

ORIGIN

1 tgattatcct aatgtgata gagccatgcc taacatgctt aggataatgg cctctctgt
61 tcttgctcgc agacatagca cttgctgtaa cttgtcacac cgtttctata ggctagctaa
121 cgagtggtcgc caagtgttaa gtgagatggt catgtgtggc ggctcgctat atgttaaacc
181 aggtggaaca tcatcggtg atgctacaac tgcttatgct aatagtgtct ttaacattg
241 tcaagctgtt acagccaatg taaatgcact tcttcaact gatggaata agatagctga
301 caagtatgtc cgcaatctac agcacaggct ctacgagtgt ctctatagaa atagagatgt
361 tgatcatgaa ttcgtgatg ag

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LOCUS MN312665 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate 2014Bat01 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312665

VERSION MN312665

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..408
/organism="Pipistrellus bat coronavirus HKU5"
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/isolate="2014Bat01"
/host="Pipistrellus abramus"
/db_xref="taxon:694008"
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gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88285"
/translation="CDRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANCAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKVKDM
QFELYVNVYRKSQPDPKFVDRYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag cgatgcctaa tatgtgtaga attttgctt ctctcatatt ggctcgtaa
61 catagtactt gttgtactaa tactgataga tttaccgct tagcaaatga gtgcgctcaa
121 gtgcttagtg agtatgtcct ctgtggcggg ggttattacg tcaaacctgg tgggaccagt
181 agcggcgatg caaccacagc ttacgccaat agtgtctta acattctgca ggcgacaact
241 gcaaatgta gtgcacttat gggcgctaat ggcaacacta ttgtgacaa agaagttaag
301 gacatgcagt ttgagctgta tgtaaatgtt tacagaaaga gccaacctga tcctaaatt
361 gtggataggt attatgcctt tctgaataag cacttttcta tgatgatt

//

LOCUS MN312666 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7544-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312666

VERSION MN312666

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Rousettus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7544-1"
/host="Eonycteris spelaea"
/db_xref="taxon:694006"
/country="Laos"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88286"
/translation="RAMPNLLRIFASLILARKHATCCNASESFYRLANECAQVLSEMV
LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR
RLYLGIIYSNTVDNELVLDYYNYLRKHFSMMI"

ORIGIN

1 agagctatgc ctaattatt gcgtatatt gccagcctta ttttagctcg taagcatgca
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121 agtgaatgg tcctctgtgg aggagggtt tacgtgaaac ctggtgttac tagtagtgga
181 gattccacaa ctgcatatgc taacagtgt ttaacattt gtcaagctgt tagtgctaat
241 ctaataacct tttatctat agatggtaat aagatttaca ctacttatgt tcaggaactg
301 cagaggcggg tataactggg tatttaccgt agtaacactg tggataatga gttagtttta
361 gattattata actatttgcg taagcatttt agtatgatga tt

//

LOCUS MN312667 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat coronavirus GCCDC1 isolate 7544-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312667

VERSION MN312667

KEYWORDS .

SOURCE Bat coronavirus GCCDC1

ORGANISM Bat coronavirus GCCDC1

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat coronavirus GCCDC1"
/mol_type="genomic RNA"
/isolate="7544-2"
/host="Eonycteris spelaea"

/db_xref="taxon:2126098"
/country="Laos"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88287"
/translation="RAMPNLLRIFASLILARKHSTCCNTSERFYRLANECAQVLSEIV
LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSRDGNKIYNSYVQGLQR
RLYLGIIYRTHTVDMELVTEYYNYLRKHFSMMI"

ORIGIN

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181 gatttacta cagcgtacgc taatagtgtg ttaatatat gtcaagctgt gagtgccaat
241 ctcaacacat tttgtctag agatggcaat aagatatata actcttatgt gcagggctta
301 cagagcgccc tgacttggg tatatatcgt acacacacag ttgacatgga attggtcacg
361 gagtattaca actatctgcg gaagcacttt agtatgatga tt

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LOCUS MN312668 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Rousettus bat coronavirus HKU9 isolate 7544-3 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312668

VERSION MN312668

KEYWORDS .

SOURCE Rousettus bat coronavirus HKU9

ORGANISM Rousettus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Rousettus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7544-3"
/host="Eonycteris spelaea"
/db_xref="taxon:694006"
/country="Laos"
gene <1..>402
/gene="RdRp"
CDS <1..>402

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88288"
/translation="RAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSEMV
LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR
RLYLGIYRSNTVDNELVLDYYNYLRKHFSMMI"

ORIGIN

1 agagctatgc ctaattgtt gcgtatatt gccagcctta ttttagctcg taagcatgca
61 acttgttgca atgcctctga gagatttat aggttgcta atgaatgcgc gcaggtttg
121 agtgagatgg tcctctgtgg aggagggtt tacgtgaaac ctggtggtac cagtagtgga
181 gattccacaa ctgcatatgc taacagtgt ttaacatct gtcaagctgt tagtgctaat
241 ctaataacct tttatctat agacggtaat aagattaca ccacatgtg gcaggaactg
301 cagaggcggg tatacttggg tatataccgt agtaactg tggataatga gttagtctg
361 gattattata actattgcg caagcattt agtatgatga tt

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LOCUS MN312669 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Roussetus bat coronavirus HKU9 isolate 7554-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312669

VERSION MN312669

KEYWORDS .

SOURCE Roussetus bat coronavirus HKU9

ORGANISM Roussetus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Roussetus bat coronavirus HKU9"
/mol_type="genomic RNA"
/isolate="7554-1"
/host="Eonycteris spelaea"
/db_xref="taxon:694006"
/country="Laos"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88289"

/translation="RAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSEMV"

LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR
RLYLGIYRSNTVDNELVLDYYNYLRKHFSMMI"

ORIGIN

1 agagctatgc ctaattatt gcgtatatt gctagcctta ttttagctcg taagcacgca
61 acttgttga atgcctctga gagatttat aggttgcta atgaatgcgc gcaggtttg
121 agtgagatgg tcctctgtgg aggagggtt tacgtgaac ctggtgttac cagtagtga
181 gattccacaa ctgcatatgc taatagtgt ttaacattt gcaagctgt tagtgctaat
241 ctaataacct tttatctat agacggtaat aagattaca ccacttatgt gcaggaatta
301 cagaggcgtt tatactggg tatataccgt agtaactctg tggataatga gttagtctg
361 gattattata actatttgcg caagcattt agtatgatga tt

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LOCUS MN312670 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Roussetus bat coronavirus HKU9 isolate 7554-2 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312670

VERSION MN312670

KEYWORDS .

SOURCE Roussetus bat coronavirus HKU9

ORGANISM Roussetus bat coronavirus HKU9

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Nobecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Roussetus bat coronavirus HKU9"

/mol_type="genomic RNA"

/isolate="7554-2"

/host="Eonycteris spelaea"

/db_xref="taxon:694006"

/country="Laos"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88290"

/translation="RAMPNLLRIFASLILARKHATCCNASERFYRLANECAQVLSEMV

LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR

RLYLGIYRSNTVDNELVLDYYNYLRKHFSMMI"

ORIGIN

1 agagctatgc ctaattatt gcgtatatt gctagcctta ttttagctcg taagcatgca
61 acttgttga atgcctctga gagatttat aggttgcta atgaatgcgc gcaggtttg

121 agtgagatgg tcctctgtgg aggagggttt tacgtgaaac ctggtggtac cagtagtgga
181 gattccacaa ctgcatatgc caacagtgtt ttaacatct gtcaagctgt tagtgctaat
241 cttaatacct tttatctat agacggtaat aagatttaca ccacctatgt gcaggaactg
301 cagaggcggg tatacttggg tatataccgt agtaacactg tggataatga gttagtctg
361 gattattata actatttgcg caagcatttt agtatgatga tt

//

LOCUS MN312671 591 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 7896 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312671

VERSION MN312671

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 591)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 591)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..591
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="7896"
/host="Rhinolophus sp."
/db_xref="taxon:1805463"
/country="China"

gene <1..>591
/gene="RdRp"

CDS <1..>591
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88291"
/translation="RAMPNMLRIMASLVLARKHTTCCSLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGNKIADKYIRNLQH
RLYECLYRNRDVIDDFVNEFYAYLRKHFSMMILSDDAVVCFNSTYASQGLVASIKNFK
SVLYYQNNVFMSEAKCWTETDLTKGPHEFCSQHTMMI"

ORIGIN

1 agagccatgc ctaatatgct tagaattatg gcctcactg ttcttgctcg caaacatacg
61 acttggtga gcttgctgca cggtttctat aggttagcta acgagtgtgc acaagtatta
121 agtgaaatgg ttatgtgtgg cggttcacta tatgttaaac caggtggaac ctcacagga
181 gatgccacaa ctgcttatgc taatagtgc ttaatatct gtcaagctat tacggcaaa
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301 caacatagac tttatgagtg tcctatagg aatagagatg ttgacataga ctttgtgat

361 gagttttacg catatttgcg taaacacttc tcaatgatga tactctctga cgatgctgtc
421 gtgtgtttta atagcaccta cgcgtctcaa ggtttagtgg ctagcataaa gaactttaag
481 tcagttcttt attaccaaaa taatgttttt atgtctgaag caaaatgctg gactgagact
541 gaccttacta aaggacctca tgaattttgc tctcaacata ctatgatgat t

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LOCUS MN312672 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7931 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312672

VERSION MN312672

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="7931"

/host="Rhinolophus sp."

/db_xref="taxon:1805463"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88292"

/translation="RAMPNMLRIMASLVLARKHTTCCSLSHRFYRLANECAQVLSEMV

MCGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGNKIADKYIRNLQH

RLYECLYRNRDVIDDFVNEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaatatget tagaattatg gcctcacttg ttcttgctcg caaacatagc
61 acttggtgta gcttgctgca cggttctat aggttagcta acgagtgtgc acaagtatta
121 agtgaatgg ttatgtgtgg cggttcacta tatgttaaac caggtggaac ctcacagga
181 gatgccacaa ctgcttatgc taatagtgtc ttaatatct gtcaagctat tacggcaaat
241 gtaaatgac tttatctac tgatggtaac aaaattgctg ataaatacat tcgcaatttg
301 caacatagac tttatgagtg tctctatagg aatagagatg ttgacataga ctttgatgat
361 gagttttacg catatttgcg taaacacttc tctatgatga tt

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LOCUS MN312673 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 7952 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312673

VERSION MN312673

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="7952"

/host="Rhinolophus sp."

/db_xref="taxon:1805463"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88293"

/translation="RAMPNMLRIMASLVLARKHTTCCSLSHRFYRLANCAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAITANVNALLSTDGINKIADKYIRNLQH
RLYECLYRNRDVIDDFVNEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaatatgct tagaattatg gcctcacttg ttcttgctcg caaacatagc
61 acttgttga gcttgcgca ccgtttctat aggttagcta acgagtgtgc acaagtatta
121 agtgaaatgg ttatgtgtgg cggttcacta tatgttaaac caggtggaac ctcacagga
181 gatgccacaa ctgcttatgc taatagtgtc ttaatatct gtcaagctat tacggcaaat
241 gtaaatgcac tttatctac tgatggtaac aaaattgctg ataaatacat tcgcaatctg
301 caacatagac tttatgagtg tcctatagga aatagagatg ttgacataga ctttgtgaat
361 gagttttacg catatttcg taaacacttc tctatgatga tt

//

LOCUS MN312674 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate BH140216 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312674

VERSION MN312674

KEYWORDS .**SOURCE** Tylonycteris bat coronavirus HKU4**ORGANISM** Tylonycteris bat coronavirus HKU4Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.**REFERENCE** 1 (bases 1 to 402)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China**JOURNAL** Unpublished**REFERENCE** 2 (bases 1 to 402)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission**JOURNAL** Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China**FEATURES** Location/Qualifiers

source 1..402

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="BH140216"

/host="Cynopterus sphinx"

/db_xref="taxon:694007"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88294"

/translation="RAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLSEYV

LCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQF

DLYINVYRKVVPDPKFVDKYYAFLNKHFSMMI"

ORIGIN1 agagctatgc ctaatatgtg tcgcatttta gcgctattga ttttggcagc taagcatagt
61 acttgttga ctaattctga taggttctac cgcctagcta atgagtgtgc tcaagtgtta
121 agtgagtatg tcctatgccg agggggttat tatgttaa acagtggtac gagtagtggt
181 gatgcaacta ctgcttatgc caatagtgtt ttaacatat tacaagccac caccgctaat
241 gttagtgcac taatgagtgc taatggtaat acgatcatag atcgtgaaat aaaggatatg
301 caatttgatt tgtatatcaa tgtatataga aaagtagtgc ctgaccta atttgttgac
361 aagtactacg catttctaa taaacacttt tctatgatga tt

//

LOCUS MN312675 406 bp RNA linear VRL 07-NOV-2019**DEFINITION** Bat betacoronavirus isolate BY140519 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.**ACCESSION** MN312675**VERSION** MN312675**KEYWORDS** .**SOURCE** Bat betacoronavirus**ORGANISM** Bat betacoronavirusViruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="BY140519"
/host="Pipistrellus abramus"
/db_xref="taxon:1805463"
/country="China"
gene <1..>406
/gene="RdRp"
CDS <1..>406
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88295"
/translation="CDRAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSE
MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYMGYIRTNTVDNDLVLDYYNYLRKHFSMM"

ORIGIN

1 tgtgatagag ctatgccccaa cttgttgcgt atatttgcca gtetaatfff ggcgcgaaaa
61 cactctactt gctgcaatgc ctctgaaaga tttataggt tagcaaatga gtgtgccccaa
121 gtgcttagtg agatggtttt atgtggaggt ggattctatg taaaaccagg aggtacaagt
181 agtggcgatt ccaccactgc atatgcaaat agtgtgttta atatttgcca agcgggtgagt
241 gctaatttaa acacctttt gtctatagat ggtaataaaa tatacacaac ttacgtacaa
301 gagttgcaac gtaggttga tatgggtatt tatcgacta acacagtgga taatgattta
361 gttctggatt attataacta ttgcgtaag cattttagta tgatga

//

LOCUS MN312676 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate BY140527 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312676

VERSION MN312676

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="BY140527"

/host="Pipistrellus sp."

/db_xref="taxon:1805463"

/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88296"

/translation="CDRAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSE

MVLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL

QRRLYMGYRTNTVDNDLVLDYNYLRKHFSMMI"

ORIGIN

1 tgtgatagag ctatgccaa cttgtgcgt atattgcca gtctaattt ggcgcgaaaa
61 cactctact gctgcaatgc ctctgaaaga tttataggt tagcaaatga gtgtgccaa
121 gtgcttagt agatggttt atgtggagg ggattctatg taaaaccagg aggtacaagt
181 agtggcgatt ccaccactgc atatgcaaat agtgtgtta atattgcca agcggtgagt
241 gctaatttaa acacctttt gtctatagat ggtaataaaa tatacacaac ttacgtaca
301 gagttgcaac gtaggttga tatgggtatt tatcgcaacta acacagtgga taatgatt
361 gtcttgatt attataacta ttgcgtaag catttagta tgatgatt

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LOCUS MN312677 407 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate BY140530 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312677

VERSION MN312677

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..407
 /organism="Bat betacoronavirus"
 /mol_type="genomic RNA"
 /isolate="BY140530"
 /host="Pipistrellus abramus"
 /db_xref="taxon:1805463"
 /country="China"
gene <1..>407
 /gene="RdRp"
CDS <1..>407
 /gene="RdRp"
 /codon_start=3
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88297"
 /translation="DRAMPNLLRIFASLILARKHSTCCNASERFYRLANECAQVLSEM
 VLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQ
 RRLYMGIIYRTNTVDNDLVLDYYNYLRKHFSMMI"

ORIGIN

1 gtgatagagc tatgccaac ttgttcgta tattgccag tctaatttg gcgcgaaaac
61 actctacttg ctgcaatgcc tctgaaagat ttataggtt agcaaatgag tgtgccaag
121 tgcttagtga gatggttta tgtggagtg gattctatgt aaaaccagga ggtacaagta
181 gtggcgattc caccactgca tatgcaaata gtgtgttaa tattgcca gcggtgagtg
241 ctaattaaa caccttttg tctatagatg gtaataaat atacacaact tacgtacaag
301 agttgcaacg taggtgtat atgggtatt atcgactaa cacagtggat aatgatttag
361 ttctggatta ttataactat ttgcgtaagc atttagtat gatgatt

//

LOCUS MN312678 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140535-1 RNA-dependent
 RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312678

VERSION MN312678

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
 /organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"
/isolate="BY140535-1"
/host="Pipistrellus abramus"
/db_xref="taxon:694008"
/country="China"
gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88298"
/translation="CDRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANECAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKEVKDM
QFELYVNVYRKSQPDPKFVDRYYAFLNKHFSMMI"

ORIGIN

1 tgtgatcgcg ctatgcctaa tatgtgcaga atatttgcatt ctctcatatt agcccgtaag
61 catagtactt gttgtactaa tactgataga tttaccgct tagcaaatga gtgcgctcag
121 gtgcttagtg agtatgtcct ttgtggcggg ggttattacg tcaaacctgg tgggaccagt
181 agcggcgatg caaccacagc ttacgccaat agtgtcttta acattttgca ggcgacaacc
241 gcaaatgta gtgcacttat gggcgctaat ggcaacacta ttgttgacaa ggaagttaag
301 gacatgcagt tgaactgta tgtaaatgt tacaggaaga gccaacctga tctaaattt
361 gtggacaggt actatgcctt tctgaataag cacttttcta tgatgatt

//

LOCUS MN312679 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140535-2 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312679

VERSION MN312679

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"

/isolate="BY140535-2"

/host="Pipistrellus abramus"

/db_xref="taxon:694008"

/country="China"

gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88299"
/translation="CDRAMPNMCRIFASLILARKHSTCCTNTDRFCRLANECAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKEVKDM
QFELYVNVYRKSQPDPKFVDRYYAFLNKHFSMMI"

ORIGIN

1 tgtgatcgcg ctatgcccaa tatgtgcaga atatttgcac ctctcatatt agcccgtaag
61 catagtactt gttgtactaa tactgataga tttgcccgt tagcaaatga gtgcgctcag
121 gtgcttagtg agtatgtcct ttgtggcggg ggtattacg tcaaacctgg tgggaccagt
181 agcggcgatg caaccacagc ttacgccaat agtgtcttta acattttgca ggcgacaacc
241 gcaaatgtta gtgcacttat gggcgctaat ggcaacacta ttgttgacaa ggaagttaag
301 gacatgcagt tgaactgta tgtaaatgtt tacaggaaga gccaacctga tcctaaattt
361 gtggacaggt actatgcctt tctgaataag cacttttcta tgatgatt

//

LOCUS MN312680 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate BY140551 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312680

VERSION MN312680

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="BY140551"
/host="Myotis horsfieldii"
/db_xref="taxon:1805463"
/country="China"

gene <1..>406
/gene="RdRp"

CDS <1..>406
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88300"
/translation="CDRAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSE
MVLGGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQEL
QRRLYMGYIRTNTVDNDLVLDYNYLRKHFSMM"

ORIGIN

1 tgtgatagag ctatgccccaa cttgtgctgt atattgcca gtctaatttt ggcgcgaaaa
61 cactctactt gctgcaatgc ctctgaaaga tttataggt tagcaaatga gtgtgccccaa
121 gtgcttagtg agatggtttt atgtggaggt ggattctatg taaaaccagg aggtacaagt
181 agtggcgatt ccaccactgc atatgcaaat agtgtgttta atattgcca agcggtgagt
241 gctaatttaa acaccttttt gtctatagat ggtaataaaa tatacacaac ttacgtacaa
301 gagttgcaac gtaggtgtga tatgggtatt tategcacta acacagtgga taatgattta
361 gtcttgagg attataacta ttgcgtaag cattttagta tgatga

//

LOCUS MN312681 409 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140562 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312681

VERSION MN312681

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"

/isolate="BY140562"

/host="Pipistrellus abramus"

/db_xref="taxon:694008"

/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88301"

/translation="CDRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANCAQVLSE

YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKVVKDM

QFELYVNVYRKSQDPKVFVDRYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctaa tatgtgcaga attttgcct ctctcatatt agcccgtaag
61 catagtacct gttgactaa tactgataga tttaccgct tagcaaatga gtgcgctcaa
121 gtgcttagtg agtatgtcct ttgtggcggg ggtattacg tcaaacctgg tgggaccagt
181 agtggcgatg caaccacagc ttacgccaat agtgtttta acattctgca ggcgacaacc
241 gcaaatgtta gtgcacttat gggcgctaata ggcaacacta ttgtgacaa agaagttaag
301 gacatgcagt ttgagctgta tgtaaatgtt tacagaaaga gccaacctga tcctaaattt
361 gtggacaggt actatgcctt tctgaataag cacttttcta tgatgatte

//

LOCUS MN312682 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140564 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312682

VERSION MN312682

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Pipistrellus bat coronavirus HKU5"
/mol_type="genomic RNA"
/isolate="BY140564"
/host="Pipistrellus abramus"
/db_xref="taxon:694008"
/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88302"

/translation="CDRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANCAQVLSE

YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKEVKDM

QFELYVNVYRKSQPDPKFVDRYYAFLNKHFSMMI"

ORIGIN

1 tgtgatcgtg cgatgcctaa tatgtgtaga attttgcct ctctcatatt ggctcgtaag
61 catagtacct gttgactaa tactgataga tttaccgct tagcaaatga gtgcgctcaa
121 gtgcttagtg agtatgtcct ctgtggcggg ggtattacg tcaaacctgg tgggaccagt
181 agcggcgatg caaccacagc ttacgccaat agtgtcttta acattctgca ggcgacaact

241 gcaaatgta gtgcacttat gggcgctaata ggcaacacta ttgttgacaa agaagttaag
301 gacatgcagt ttgagctgta tgtaaattgt tacagaaaga gccaacctga tcttaaattt
361 gtggataggt attatgcctt tctgaataag cacttttcta tgatgatt

//

LOCUS MN312683 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140565-1 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312683

VERSION MN312683

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"

/isolate="BY140565-1"

/host="Pipistrellus abramus"

/db_xref="taxon:694008"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88303"

/translation="RAMPNMCRIFASLILARKHSTCCTNTDRFYRLANCAQVLSEYV

LCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGTIVDKEVKDMQF

ELYVNVYRKSQDPDKFVDRYYAFLNKHFSMMI"

ORIGIN

1 agagcgatgc ctaatatgtg tagaattttt gcttctctca tattggctcg taagcatagt
61 acttgttgta ctaactga tagattttac cgcttagcaa atgagtgcgc tcaagtgcct
121 agtgagtatg tctctgtgg cgggtggtat tacgtcaaac ctggtgggac cagtagcggc
181 gatcaacca cagcttacgc caatagtgtc ttaacattc tgcaggcgac aactgcaaat
241 gttagtgcac ttatgggcgc taatggcaac actattgttg acaagaagt taaggacatg
301 cagtttgagc tgatgtaaa tgttacaga aagagccaac ctgatcctaa atttgggat
361 aggtattatg cctttctgaa taagcacttt tctatgatga tt

//

LOCUS MN312684 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate BY140565-2 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312684

VERSION MN312684

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="BY140565-2"

/host="Pipistrellus abramus"

/db_xref="taxon:1805463"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88304"

/translation="RAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSEMV
LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR
RLYMGIYRTNTVDNDLVLDYYNYLRKHFSMMI"

ORIGIN

1 agagctatgc ccaacttgtt gcgtatattt gccagtctaa tttggcgcg aaaactct
61 acttgctgca atgcctctga aagatttat aggttagcaa atgagtgtgc ccaagtgtt
121 agtgagatgg tttatgtgg aggtggattc tatgtaaac caggaggtag aagtagtggc
181 gattcacca ctgcatatgc aaatagtgtg ttaatatatt gccaagcggg gtagtgctaat
241 taaacacct tttgtctat agatggtaat aaaatataca caacttacgt acaagagttg
301 caacgtaggt tgtataggg tattatcgc actaacacag tggataatga ttagtctg
361 gattattata actatttgcg taagcatttt agtatgatga tt

//

LOCUS MN312685 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140568 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312685

VERSION MN312685

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"

/isolate="BY140568"

/host="Pipistrellus abramus"

/db_xref="taxon:694008"

/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88305"

/translation="CDRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANCAQVLSE

YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKEVKDM

QFELYVNVYRKSQPDPKFVDRYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctaa tatgtgcaga atctttgcat ctctcatatt agcccgtaag
61 catagtactt gttgactaa tactgataga tttaccgct tagcaaatga gtgcgctcaa
121 gtgcttagtg agtatgtcct ttgtgtggt ggttattacg tcaaactgg tgggaccagt
181 agcggcgatg caactactgc ttacgcaat agtgtttta acattctgca ggcgactacc
241 gcgaatgta gtgcacttat gggcgcta ggaacacta ttgtgacaa ggaagttaag
301 gacatgcagt ttgagctga tgtaaatgt tacaggaaga gccagcctga tcctaaatt
361 gtggacaggt attatgcctt tctgaacaag cattttcta tgatgatt

//

LOCUS MN312686 664 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140575 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312686

VERSION MN312686

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 664)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 664)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..664
/organism="Pipistrellus bat coronavirus HKU5"
/mol_type="genomic RNA"
/isolate="BY140575"
/host="Pipistrellus abramus"
/db_xref="taxon:694008"
/country="China"
gene <1..>664
/gene="RdRp"
CDS <1..>664
/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88306"
/translation="KHSTCCTNTDRFYRLANCAQVLSEYVLCGGGYVVKPGGTSSGD
ATTAYANSVFNILQATTANVSALMGANGNTIVDKQFELYVNVYRKSQDPKQFV
DRYYAFLNKHFSMMILSDDGVVCYNSDYATKGYIASIQNFKETLYYQNNVFMSEAKCW
VETDLKKGPHEFCSQHTLFIKDGDDGYFLPYPDPSRILSAGCFVDDIVKTDGTLMVER
FVS"

ORIGIN

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1 aagcatagta cttgtgtac taatactgat agattttacc gcttagcaaa tgagtgcgct
61 caagtgccta gcgagtatgt cctttgtggc ggtggttatt acgtcaaacc tgggtgggacc
121 agtagtggcg atgcaaccac agcttacgcc aatagtgtct ttaacatctt gcaggcgact
181 accgcaaatg ttagtgcact tatgggtgct aatggcaaca ctattgttga caaagaagtt
241 aaggacatgc agtttgagct gtatgtaaat gttacagaa agagccaacc tgatcctaaa
301 ttcgtggaca ggtattatgc cttctgaat aagcactttt ccatgatgat actgtctgat
361 gacggtgtcg tatgctataa tagtgattat gccactaagg ggtacatcgc atccattcaa
421 aattttaagg agactctgta ctatcagaac aatgtcttca tgcagaggc taaatgctgg
481 gtggaacccg atttgaaaaa aggtccacat gagttttgct cacagcatac actttcata
541 aaggatggtg acgatggta ctctacct tatccagacc ctcaagaat tctgtctgcc
601 ggttgcctcg tcgatgatat cgtcaagact gacggtaacg tcatggttga gagattcgtg
661 tcatt
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LOCUS MN312687 406 bp RNA linear VRL 07-NOV-2019
DEFINITION Pipistrellus bat coronavirus HKU5 isolate BY140576 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.
ACCESSION MN312687
VERSION MN312687
KEYWORDS .
SOURCE Pipistrellus bat coronavirus HKU5
ORGANISM Pipistrellus bat coronavirus HKU5
Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 406)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..406

/organism="Pipistrellus bat coronavirus HKU5"

/mol_type="genomic RNA"

/isolate="BY140576"

/host="Pipistrellus abramus"

/db_xref="taxon:694008"

/country="China"

gene <1..>406

/gene="RdRp"

CDS <1..>406

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

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/translation="DRAMPNMCRIFASLILARKHSTCCTNTDRFYRLANECAQVLSEY

VLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNTIVDKVVKDMQ

FELYVNVYRKSQDPKFDVDRYYAFLNKHFSMMI"

ORIGIN

1 tgatagact atgcctaata tgttagaat cttgcttct ctcatttgg cgcgtaagca
61 tagtactgt gtactaaca ctgatagatt ttaccgctta gctaatgagt gcgctcaagt
121 gcttagtgag tacgtccttt gtggcgggtg ttattacgtc aaacctggtg ggaccagtag
181 cggcgatgca accacggctt acgccaatag tgtctttaac attctgcagg cgactaccgc
241 gaatgtagt gcacttatgg gcgctaattg caacactatt gttgacaaag aagtaagga
301 catgcagttt gagctatatg taaatgtta cagaaagagc cagcctgacc ctaaattgt
361 ggacaggtat tatgccttc tgaataagca ttttctatg atgatt

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LOCUS MN312688 388 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 8363 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312688

VERSION MN312688

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 388)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 388)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..388
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/mol_type="genomic RNA"
/isolate="8363"
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/db_xref="taxon:1508227"
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gene <1..>388
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CDS <1..>388
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AQVLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGINKIAD
KYIRNLQHRLYECLYRNRDVEDHEFVDE"

ORIGIN

1 tggttgggat taccctaaat gtcacagagc catgcctaat atgcttagaa tcatggcttc
61 ccttgttctt gctcgaaac atagcacttg ttgtaacttg tcatcctgtt tctatagatt
121 agctaataag tgtgcacaag tattaagtga gatggctcatg tgtggcggct cattatatgt
181 gaaaccaggt ggaacatcat ccggtgatgc cacaactgct tatgctaata gtgtgtttaa
241 catctgtcaa gcagtaacag ctaatgtaaa tgcacttctc tcaactgatg gtaataagat
301 tgctgataag tacatccgca acctcaaca tagactttat gagtgtctct atagaaatag
361 agatgtagat catgagttcg tggatgaa

//
LOCUS MN312689 393 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8824 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312689

VERSION MN312689

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 393)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..393
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
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/country="China"
gene <1..>393
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CDS <1..>393
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AQVLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIID
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ORIGIN

1 tggttgggat tactctaagt gtagcgtgc tatgcctaat atgtgtcgea ttttagcgtc
61 attgattttg gcacgtaagc atagctactg ttgtactaat tctgataggt tetaccgctt
121 agccaatgag tgtgctcaag tgtaagtga gtatgtccta tgcggaggag gtattatgt
181 taaccagggt ggtacgagta gtggtgatgc aactactgct tatgccaata gtgttttaa
241 catattacaa gccaccaccg ctaatgtag tgcacttatg agtgctaag gtaatacga
301 catagatcgt gaaataaagg atatgcaatt tgacttgat atcaatgat atagaaaagt
361 agtgctgat cctaaattg tggcaagtac tac

//

LOCUS MN312690 388 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8826 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312690

VERSION MN312690

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 388)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 388)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..388

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="8826"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>388
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CDS <1..>388
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88310"
/translation="WDYPKCDRAMPNMCRLASLILARKHSTCCTNSDRFYRLANECA
QVLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDR
EIKDMQFDLYINVYRKVVPDPKFFAST"

ORIGIN

1 gttgggatta tcctaatgt gatcgtgcta tgcctaata gtgtcgcatt ttagcgtcat
61 tgatttggc acgtaagcat agtacttgtt gtactaatc tgatagggtc taccgcttag
121 ccaatgagtg tgcctcaagt ttaagtgagt atgtcctatg cggaggagggt tattatgta
181 aaccaggtgg tacgagtagt ggtgatgcaa ctactgetta tgccaatagt gttttaaca
241 tattacaagc caccaccgct aatgttagtg cacttatgag tgctaattgt aatacgatca
301 tagatcgtga aataaaggat atgcaattg acttgtatat caatgtatat agaaaagtag
361 tgctgatcc taaatttgg gcaagtac

//

LOCUS MN312691 407 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 151161 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312691

VERSION MN312691

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="151161"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"

gene /country="China"
<1..>407
/gene="RdRp"
CDS <1..>407
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88311"
/translation="CDRAMPNMLRIMASLV LARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL
QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 tgtgatagag ccatgectaa catgcttaga atcatggctt ctctgttct tgctcgcaaa
61 catagcactt gctgtaactt gtcacaccgc ttctatagat tagctaacga gtgtgcacaa
121 gtattaagtg agatggctcat gtgtggagc tcactatag taaaccagg cggaacatca
181 tcaggtgatg ccacaactgc ttatgctaat agtgtgttta acattgtca agccgtaaca
241 gctaatgtaa atgcacttct ttaactgat ggtaacaaga ttgctgacaa gtatgtgcgc
301 aatcttcagc acagactata tgagtgtctc tatagaaata gagacgttga tcatgagttt
361 gtggatgagt ttacgcata ttgcgtaag cattttcta tgatgat

//

LOCUS MN312692 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151162 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312692

VERSION MN312692

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
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/codon_start=1
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/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNL
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ORIGIN

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241 gccaatgtaa atgcacttct ttaactgat ggtaacaaga ttgcagacaa gtactgctgc
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LOCUS MN312693 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151199 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312693

VERSION MN312693

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="151199"

/host="Rhinolophus sinicus"

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/country="China"

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CDS <1..>407

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QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

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241 gctaata gtaacactct tcaactgat ggcaacaaga ttgccgacaa gtacgtccg
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361 gtggatgaat ttacgcata ttgcgcaaa cacttctca tgatgat

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LOCUS MN312694 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151200 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312694

VERSION MN312694

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="151200"

/host="Rhinolophus sinicus"

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/country="China"

gene <1..>408

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CDS <1..>408

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/codon_start=1

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QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

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241 gccaatgtaa atgcactct tcaactgat ggtaacaaga ttgctgacaa gtatgttcgc
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361 gtggatgaat ttacgcata ttgcgtaag cacttcteta tgatgatt

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LOCUS MN312695 411 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151239 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312695

VERSION MN312695

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="151239"

/host="Rhinolophus sinicus"

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/country="China"

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CDS <1..>411

/gene="RdRp"

/codon_start=3

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/protein_id="QGA88315"

/translation="CDRAMPNMLRIMASLV LARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

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181 catcaggtga tgctacaact gcttatgcta atagtgtgtt caacatctgt caagccgtaa
241 cagctaatgt aatgcactt ctttcaactg atggtaataa gattgctgac aagtatgtgc
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361 tcgtggatga gtttacgca tatttcgta agcattttc tatgatgatt c

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LOCUS MN312696 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151256 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312696

VERSION MN312696

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Bat SARS-like coronavirus"

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/isolate="151256"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

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/gene="RdRp"

CDS <1..>409

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/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88316"

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QHRLYECLYRNRDVEDHEFVDEFYAYLRKHFSMMI"

ORIGIN

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301 aatcttcagc acagactata tgagtgtctc tatagaaata gagacgttga tcatgagttt
361 gtggatgagt ttacgcata ttgcgtaag catttttcta tgatgattc

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LOCUS MN312697 410 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 151262 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312697

VERSION MN312697

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

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/gene="RdRp"

CDS <1..>410

/gene="RdRp"

/codon_start=3

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/protein_id="QGA88317"

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QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

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241 cagccaatgt aatgcactt cttcaactg atggtaacaa gattgcagac aagtacgtgc
301 gcaatctca gcacagacta tatgagtgtc tctatagaaa tagagacgtt gatcatgagt
361 ttgtggatga gttttacgca tatttgcgta agcattttc tatgatgatt

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LOCUS MN312698 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 151267 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312698

VERSION MN312698

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Bat SARS-like coronavirus"
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/isolate="151267"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
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CDS <1..>408
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ORIGIN

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LOCUS MN312699 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151268 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312699

VERSION MN312699

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409
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ORIGIN

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61 catagcactt gctgtaattt gtcacaccgt ttctatagat tagctaata ga atgtgcacaa
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361 gtggatgagt ttacgcata ttgcgtaag cattttcta tgatgatc

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LOCUS MN312700 411 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 151270 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312700

VERSION MN312700

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
/organism="Bat SARS-like coronavirus"
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QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 aatgtgatag agccatgcct aacatgctta gaatcatggc ttctctcgtt cttgctcgca
61 aacatagcac ttgctgtaat ttgtcacacc gtttctatag attagctaat gaatgtgcac
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361 ttgtggatga gttttacgca tatttgcgta agcatttttc tatgatgatt c

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LOCUS MN312701 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151271 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312701

VERSION MN312701

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/mol_type="genomic RNA"
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/country="China"
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ORIGIN

1 tgtgatagag ccatgcctaa catgcttaga atcatggctt ctctcgttct tgctcgcaaa
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241 gccaatgtaa atgcacttct tcaactgat ggtaacaaga ttgcagacaa gtacgtgcgc
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361 gtggatgagt ttacgcata ttgcgtaag catttttcta tgatgattc

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LOCUS MN312702 411 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151334 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312702

VERSION MN312702

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="151334"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

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/gene="RdRp"
CDS <1..>411
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/codon_start=1
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/protein_id="QGA88322"
/translation="KCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLS
EMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRN
LQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 aaatgtgata gagccatgcc taacatgctt agaatcatgg cttctctcgt tcttgcctgc
61 aaacatagca cttgttgtaa tttgcacac cgtttctata gattagctaa tgaatgtgca
121 caagtattaa gtgagatggt catgtgtggc ggctcactat atgtaaaacc aggtggaaca
181 tcgtcaggtg atgcaacgac tgcttatgct aatagtgtgt ttaacattg tcaagctgta
241 acagccaatg taaatgcact tcttcaact gatgtaaca agattgccga caagtacgtg
301 cgcaatcttc agcacagact atatgagtgt ctctatagaa atagagacgt tgatcatgag
361 tttgtgatg agttttacgc atatttgcgt aagcatttt ctatgatgat t

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LOCUS MN312703 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151388 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312703

VERSION MN312703

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="151388"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>408
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CDS <1..>408
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/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88323"
/translation="CDRAMPNMLRIMASLV LARKHSTCCNLSHRFYRLANECAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDG NKIADKYVRNL
QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 tgtgatagag ccatgcctaa catgcttaga atcatggctt ctctcgttct tgctcgcaaa
61 catagcactt gttgtaattt gtcacaccgt ttctatagat tagctaata ga atgtgcacaa
121 gtattaagtg agatgggcat ggtggcggc tcactatag taaaaccagg tggaacatcg
181 tcaggtgatg caacgactgc ttatgctaata agtgtgttta acatttgta agctgtaaca
241 gccaatgtaa atgcacttct tcaactgat ggtaacaaga ttgccgacaa gtacgtgcegc
301 aatcttcagc acagactata tgagtgtctc tatagaaata gagacgttga tcatgagttt
361 gtggatgagt ttacgcata ttgcgtaag catttttcta tgatgatt

//

LOCUS MN312704 421 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151491 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312704

VERSION MN312704

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 421)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 421)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..421
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="151491"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>421
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CDS <1..>421
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/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88324"
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VLSEMVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDG NKIADKY
VRNLQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 gattatccta aatgtgatag agccatgcct aatatgctta gaatcatggc ttctcttgtt
61 cttgctcgca aacatagcac ttgttgaac ttgtcacacc gtttctatag attagcta
121 gaatgtgcac aagtattaag tgagatggc atgtgtggcg gctcactata tgtaaacca
181 ggtggaacat cgctcgggtga tgcaacgact gcttatgcta atagtgtgtt taacattgt
241 caagctgtaa cagccaatgt aaatgcactt ctttcaactg atggtaacaa gattgctgac
301 aagtatgttc gcaatccca acacaggcta tatgagtgtc tctatagaaa tagagacgtt
361 gatcacgaat tcgtggatga attttacgca ttttgcgta agcacttctc tatgatgatt
421 c

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LOCUS MN312705 410 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151493 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312705

VERSION MN312705

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..410

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="151493"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>410

/gene="RdRp"

CDS <1..>410

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88325"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 aatgtgacag agccatgcct aatatgctta gaatcatggc ttctcttgtt cttgctcgca
61 aacatagcac ttgttgaac ttgtcacacc gtttctatag attagcta gaatgtgcac
121 aagtattaag tgagatggc atgtgtggcg gctcactata tgtaaacca ggtggaacat

181 cgctcgggtga tgcaacgact gcttatgcta atagtgtgt taacatttgt caagctgtaa
241 cagccaatgt aatgcactt ctttcaactg atggaacaa gattgctgac aagtatgttc
301 gcaatctcca acacaggcta tatgagtgtc tctatagaaa tagagacgtt gatcacgaat
361 tcgtggatga attttagcga tatttgcgta agcacttctc tatgatgatt

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LOCUS MN312706 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151503 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312706

VERSION MN312706

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="151503"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

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/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88326"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVEDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 tgtgatagag ccatgcctaa tatgcttaga atcatggctt ctctgtcct tgctcgcaaa

61 catagcactt gttgtaactt gtcacaccgt ttctatagat tagctaatga atgtgcacaa

121 gtattaagtg agatgggtcat gttggcgge tcactatag taaaaccagg tggacatcg

181 tcgggtgatg caacgactgc ttatgctaat agtgtgttta acatttgca agctgtaaca

241 gccaatgtaa atgcacttct ttaactgat ggtaacaaga ttgctgacaa gtatgttcgc

301 aatctccaac acaggetata tgagtgtctc tatagaaata gagacgttga tcacgaattc

361 gtggatgaat tttagcata ttgcgtaag cacttctc taatgatgattc

//

LOCUS MN312707 409 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151507 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312707

VERSION MN312707

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/mol_type="genomic RNA"

/isolate="151507"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

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CDS <1..>409

/gene="RdRp"

/codon_start=1

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/protein_id="QGA88327"

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ORIGIN

1 tgtgatagag ccatgcctaa tatgcttaga atcatggcct ctcttgttct tgctcgcaa
61 catagcactt gttgtaactt gtcacaccgt ttctatagat tagctaatga atgtgcacaa
121 gtattaagtg agatggcat gtgtggcggc tcactatag taaaaccagg tggaacatcg
181 tcgggtgatg caacgactgc ttatgctaat agtgtgttta acatttgcac agctgtaaca
241 gccaatgtaa atgcactct tcaactgat ggtaacaaga ttgctgacaa gtatgttcgc
301 aatctccaac acaggtata tgagtgtctc tacagaaata gagacgtga ttacgaattc
361 gtggatgaat tttacgcata tttgcgtaag cacttcteta tgatgattc

//

LOCUS MN312708 411 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 151512 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312708

VERSION MN312708

KEYWORDS .**SOURCE** Bat SARS-like coronavirus**ORGANISM** Bat SARS-like coronavirusViruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.**REFERENCE** 1 (bases 1 to 411)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.**TITLE** Origin and cross-species transmission of bat coronaviruses in China**JOURNAL** Unpublished**REFERENCE** 2 (bases 1 to 411)**AUTHORS** Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.**TITLE** Direct Submission**JOURNAL** Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China**FEATURES** Location/Qualifiers

source 1..411

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

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/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>411

/gene="RdRp"

CDS <1..>411

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88328"

/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVEDHEFVDEFYAYLRKHFSMMI"

ORIGIN1 aatgtgatag agccatgcct aatagctta gaatcatggc ttctctgtt cttgctcgca
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121 aagtattaag tgatagggc atgtgtggcg gctcactata tgtaaacca ggtggaacat
181 cgctcgggtga tgcaacgact gcttatgcta atagtgtgt taacatttgt caagctgtaa
241 gagcaatgt aatgcactt cttcaactg atggtacaa gattgctgac aagatgttc
301 gcaatctcca acacaggcta tatgagtgc tctatagaaa tagagacgtt gatcacgaat
361 tcgtgatga atttacgca tatttgcgta agcacttctc tatgatgatt c

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LOCUS MN312709 411 bp RNA linear VRL 07-NOV-2019**DEFINITION** Bat SARS-like coronavirus isolate 151513 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.**ACCESSION** MN312709**VERSION** MN312709**KEYWORDS** .**SOURCE** Bat SARS-like coronavirus**ORGANISM** Bat SARS-like coronavirusViruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="151513"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>411
/gene="RdRp"
CDS <1..>411
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88329"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNGKIADKYVRNL
QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 aatgtgatag agccatgcct aatatgetta gaatcatggc ttctcttgtt cttgctcgca
61 aacatagcac ttgttgtaac ttgtcacacc gttctatag attagctaat gaatgtgcac
121 aagtattaag tgagatggtc atgtgtggcg gctcactata tgtaaacca ggtggaacat
181 cgtcgggtga tgcaacgact gcttatgcta atagtgtgtt taacattgt caagctgtaa
241 cagccaatgt aatgcaact ctttcaactg atggtaacaa gattgctgac aagtatgttc
301 gcaatctcca acacaggcta tatgagtgtc tctatagaaa tagagacgtt gatcacgaat
361 tcgtggatga attttagcga tatttgcgta agcacttctc tatgatgatt c

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LOCUS MN312710 411 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 151514 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312710

VERSION MN312710

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="151514"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>411
/gene="RdRp"
CDS <1..>411
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88330"
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MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNL
QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 aatgtgatag agccatgcct aatatgetta gaatcatggc ttctcttgtt cttgctcgca
61 aacatagcac ttgttgtaac ttgtcacacc gttctatag attagctaat gaatgtgcac
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181 cgctgggtga tgcaacgact gcttatgcta atagtgtgtt taacatttgt caagctgtaa
241 cagctaatgt aatgcactt cttcaactg atggtacaaa gattgctgac aagtatgtgc
301 gcaatctca acacaggcta tatgagtgc tctatagaaa tagagacgtt gatcatgaat
361 ttgtggatga atttatgca tatttgcgta agcactctc tatgatgatt c

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LOCUS MN312711 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 151569 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312711

VERSION MN312711

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..402
 /organism="Bat SARS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="151569"
 /host="Rhinolophus sinicus"
 /db_xref="taxon:1508227"
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gene <1..>402
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CDS <1..>402
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 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88331"
 /translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFMMI"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttgctgta acttatcaca ccgtttctac aggttagcta acgagtgctg gcaagtatta
121 agtgagatgg tcattgtggt cggtcacta tatgttaa acaggtggaac atcatcaggt
181 gatgctaaa ctgcttatgc taatagtgtt ttaacattt gtaagctgt tacagctaat
241 gtaaatgcac ttctctcaac ttagtgtaac aagatagctg acaagtatgt ccgcaatcta
301 caacacagge tttatgagtg tctctataga aatagggatg ttgatcatga atcgtggat
361 gagttttacg cttacctgcg taaacatttc tctatgatga tt

//

LOCUS MN312712 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152609 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312712

VERSION MN312712

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399
 /organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"
/isolate="152609"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>399
/gene="RdRp"
CDS <1..>399
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88332"
/translation="AMPNMCRI LASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgctg catttagcg tcattgattt tggcacgtaa gcatagtact
61 tgttgacta attctgatag attttaccgc ttaccgaatg agtgtgctca agtgtaagt
121 gagtatgtct tatgeggagg ggggtattat gttaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgccaa tagtgttttt aacatattac aagccactac cgctaattgt
241 agtgactaa tgagtgctaa tgtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgactgt ataccaatgt gtagagaaa gtagtgcctg atcctaaatt tgttgacaag
361 tactacgat ttcttaataa acattttct atgatgatt

//

LOCUS MN312713 388 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152619 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312713

VERSION MN312713

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 388)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 388)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..388
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152619"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>388
/gene="RdRp"
CDS <1..>388
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88333"
/translation="MCRILASLILARKHSTCCTNSDRFYRLANECAQVLSEYVLCGGG
YYVKPGGTSSGDATTA YANSVFNILQATTANVSALMSANGNTIVDREIKDMQFDLYTN
VYRKVVPDPKFVDKYYAFLNKHFSMM"

ORIGIN

1 atatgtgtcg cattttagcg tcattgatt tggcacgtaa gcatagtact tgtgtacta
61 attctgatag attttaccgc ttagccaatg agtgtgctca agtgtaagt gagtatgtct
121 tatcgaggagg gggttattat gttaaaccag gtggtacgag tagtggtgat gcaactactg
181 cttatgcaa tagtgtttt aacatattac aagccactac cgctaagtgt agtgcactaa
241 tgagtgctaa tgtaacacg atcgtagatc gtgaaataaa ggatatgcaa tttgacttgt
301 ataccaatgt gtagataaaa gtagtgctg atcctaaatt tgttgacaag tactacgcat
361 ttcttaataa acactttct atgatgat

//

LOCUS MN312714 302 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152620 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312714

VERSION MN312714

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 302)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 302)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..302
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152620"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>302
/gene="RdRp"

CDS <1..>302
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88334"
/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQ"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcagctaa gcatagtact
61 tttgtacta attctgatag attttaccgc ttagccaatg agtgtgtctca agtgtaagt
121 gagtatgtct tatgcggagg gggttattat gttaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgcca tagtgttttt aacatattac aagccactac cgtaatgtt
241 agtgactaa tgagtgtctaa tggtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tt

//

LOCUS MN312715 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152626 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312715

VERSION MN312715

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152626"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>399

/gene="RdRp"

CDS <1..>399

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88335"

/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL

CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD

LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcagctaa gcatagtact

61 tgttgacta attctgatag attttaccgc ttagccaatg agtgtgctca agtgtaagt
121 gagtatgtct tatgcggagg ggggtattat gtaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgcca tagtgTTTT aacatattac aagccactac cgctaatgtt
241 agtgactaa tgagtgctaa tggtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgacttgt ataccaatgt gtatagaaaa gtatgctctg atcctaaatt tgttgacaag
361 tactacgcat ttcttaataa acattttct atgatgatt

//

LOCUS MN312716 408 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152628 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312716

VERSION MN312716

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152628"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88336"

/translation="CDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLSE

YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDM

QFDLYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctaa tatgtgtcgc attttagcgt cattgattt ggcacgtaag

61 catagtactt gttgtactaa ttctgataga tttaccgct tagccaatga gtgtgctcaa

121 gtgtaaagt agtatgtctt atgcggaggg ggttattatg ttaaaccagg tggtacgagt

181 agtggtgatg caactactgc ttatgccaat agtgTTTTa acatattaca agccactacc

241 gctaatgta gtgcactaat gagtgcctaat ggtaacacga tctagatcg tgaataaag

301 gatagcaat ttgacttga taccaatgtg tatagaaaag tagtgcctga tctaaattt

361 gttgacaagt actacgcatt tcttaataaa cactttteta tgatgatt

//

LOCUS MN312717 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152649 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312717

VERSION MN312717

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152649"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88337"

/translation="RAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLSEYV
LCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQF
DLYTNVYRKVVPDPKFVDKYYAFLNKHFSMMI"

ORIGIN

1 agagctatgc ctaatatgtg tcgcatttta gcgctattga ttttggcagc taagcatagt
61 acttgttga ctaattctga tagattttac cgcttagcca atgagtgtgc tcaagtgtta
121 agtgagtatg tcttatgcgg aggggggttat tatgttaaac caggtggtac gagtagtggt
181 gatgcaacta ctgcttatgc caatagtgtt tttaacatat tacaagccac taccgctaat
241 gttagtgcac taatgagtgc taatggtaac acgatcgtag atcgtgaaat aaaggatatg
301 caatttgact tgtataccaa tgtgtataga aaagtagtgc ctgatcctaa atttgttgac
361 aagtactacg catttcttaa taaacacttt tctatgatga tt

//

LOCUS MN312718 336 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152656 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312718

VERSION MN312718

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 336)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 336)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..336

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152656"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>336

/gene="RdRp"

CDS <1..>336

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88338"

/translation="MPNMCRILASLILARKHSTCCTNSDRFYRLANECAQVLSEYVLC

GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFDL

YTNVYRKVVP"

ORIGIN

1 tatgcctaat atgtgtcgca ttttagcgtc attgatttg gcacgtaage atagtacttg

61 ttgtactaat tctgatagat tttaccgctt agccaatgag tgtgctcaag tgtaagtga

121 gtatgtctta tggggagggg gttattatgt taaaccaggt ggtacgagta gtggtgatgc

181 aactactgct tatgccaata gtgttttaa catattaca gccactaccg ctaatgtag

241 tgcaactatg atgctaatg gtaacacgat cgtagatcgt gaaataaagg atatgcaatt

301 tgacttgat accaatgtgt atagaaaagt agtgcc

//

LOCUS MN312719 409 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152658 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312719

VERSION MN312719

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152658"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>409

/gene="RdRp"

CDS <1..>409

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88339"

/translation="CDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANECAQVLSE

YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDM

QFDLYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 atgtgataga gctatgccta atatgtgtcg catttagcg tcattgattt tggcacgtaa
61 gcatagtact tgtgtacta attctgatag atttaccgc ttagccaatg agtgtgctca
121 agtgtaagt gagtatgtct tatgcggagg ggggtattat gtaaaccag gtggtacgag
181 tagtggtgat gcaactactg cttatgcca tagtgttttt aacatattac aagccactac
241 cgctaagtgt agtgcactaa tgagtgctaa tgtaacacg atcgtagatc gtgaaataaa
301 ggatatgcaa ttgacttgt ataccaatgt gtagagaaaa gtagtgctg atcctaaatt
361 tgttgacaag tactacgcat ttcttaataa acacttttct atgatgatt

//

LOCUS MN312720 399 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152659 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312720

VERSION MN312720

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152659"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>399

/gene="RdRp"

CDS <1..>399

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88340"

/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANCAQVLSEYVL

CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGTIVDREIKDMQFD

LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgcta atatgtgctg cattttagcg tcattgatt tggcacgtaa gcatagtact
61 tgttgtaata attctgatag attttaccgc ttagccaatg agtgtgctca agtgtaagt
121 gagtatgtct tatcgaggagg ggggtattat gtaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgcaa tagtgttttt aacatattac aagccactac cgctaatgtt
241 agtgcactaa tgagtgctaa tggaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 ttgactgtg ataccaatgt gtagagaaa gtagtgctg atcctaaatt tgttgacaag
361 tactacgcat ttctaataa acactttct atgatgatt

//

LOCUS MN312721 410 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152660 RNA-dependent RNA

polymerase (RdRp) gene, partial cds.

ACCESSION MN312721

VERSION MN312721

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 410)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..410
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152660"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>410
/gene="RdRp"
CDS <1..>410
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88341"
/translation="CDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDM
QFDLYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 aatgtgacag agctatgcct aatatgtgc gcattttagc gtcattgatt ttggcacgta
61 agcatagtac ttgtgtact aattctgata gattttaccg cttagccaat gagtgtgctc
121 aagtgttaag tgagtatgct ttatgcggag ggggttatta tgtaaacca ggtggtacga
181 gtatggtga tgcaactact gcttatgcca atagtgttt taacatatta caagccacta
241 ccgctaagt tagtgcacta atgagtgcta atggaacac gatcgtagat cgtgaaataa
301 aggatatgca atttgactg tataccaatg tgtatagaaa agtagtgcct gatcctaaat
361 ttgttgacaa gctactacgca ttcttaata aacactttc tatgatgatt

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LOCUS MN312722 398 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152684 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312722

VERSION MN312722

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 398)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..398

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152684"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>398
/gene="RdRp"
CDS <1..>398
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88342"
/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFDKYYAFLNKHFSMM"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tttgtacta attctgatag attttaccgc ttagccaatg agtgtgctca agtgtaagt
121 gagtatgtct tatcgaggagg ggggtattat gtaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgcaaa tagtgtttt aacatattac aagccactac cgctaatgtt
241 agtgcactaa tgagtgctaa tgtaacacg atcgtagatc gtgaaataaa ggatagcaa
301 ttgactgt ataccaatgt gtagaaaaa gtatgcctg atcctaaatt tgttgacaag
361 tactacgat ttcttaataa acattttct atgatgat

//

LOCUS MN312723 367 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152686 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312723

VERSION MN312723

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..367

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152686"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

gene /country="China"
<1..>367
/gene="RdRp"
CDS <1..>367
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88343"
/translation="ASLILARKHSTCCTNSDRFYRLANECAQVLSEYVLCGGGGYYVKP
GGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFDLYTNVYRKV
VPDPKFVDKYYAFLNKHFSM"

ORIGIN

1 agcgtcattg atttggcac gtaagcatag tacttgtgt actaattctg atagattta
61 ccgcttagcc aatgagtgtg ctcaagtgtt aagtgagtat gtcttatgcg gaggggggta
121 ttatgttaa ccaggtgga cgagtagtgg tgatgcaact actgcttatg ccaatagtgt
181 ttttaacata ttacaagcca ctaccgctaa tgtagtgca ctaatgagtg ctaatgtaa
241 caccatcgta gatcgtgaaa taaagatat gcaatttgac ttgtatacca atgtgtatag
301 aaaagtatg cctgatccta aattgttga caagtactac gcatttcta ataacactt
361 ttctatg

//

LOCUS MN312724 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152687 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312724

VERSION MN312724

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152687"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>399
/gene="RdRp"

CDS <1..>399
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88344"
/translation="AMPNMCRI L ASLILARKHSTCCTNSDRFYRLAN ECAQVLSEYV L
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPK FVDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgecta atatgtgctg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tgttgacta attctgatag attttaccgc ttagccaatg agtgtgctca agtgtaagt
121 gagtatgtct tatgcggagg gggttattat gtaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgcaa tagtgTTTT aacatattac aagccactac cgctaatgtt
241 agtgactaa tgagtgctaa tggtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 ttgacttgt ataccaatgt gtatagaaaa gtagtgcctg atcctaaatt tgttgacaag
361 tactacgcat ttcttaataa acattttct atgatgatt

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LOCUS MN312725 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152688 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312725

VERSION MN312725

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152688"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88345"

/translation="RAMPNMCRI L ASLILARKHSTCCTNSDRFYRLAN ECAQVLSEYV
LCGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQF

DLYTNVYRKVVPDPKFVDKYYAFLNKHFSMMI"

ORIGIN

1 agagctatgc ctaatgtg tcgcatttta gcgtcattga ttttggcagc taagcatagt
61 acttgttga ctaattctga tagattttac cgcttagcca atgagtgtgc tcaagtgtta
121 agtgagtatg tcttatgcgg aggggggtat tatgttaaac cagggtgtac gagtagtggt
181 gatgcaacta ctgcttatgc caatagtgtt ttaacatat tacaagccac taccgcta
241 gttagtgcac taatgagtc taatggtaac acgatcgtag atcgtgaaat aaaggatag
301 caatttgact tgtatacaa tgtgtataga aaagtagtc ctgaccta atttgtgac
361 aagtactag catttctaa taaacactt tctatgatga tt

//

LOCUS MN312726 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152689 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312726

VERSION MN312726

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152689"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>399

/gene="RdRp"

CDS <1..>399

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88346"

/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANCAQVLSEYVL

CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGTIVDREIKDMQFD

LYTNVYRKVVPDPKFVDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcatgtatt tggcacgtaa gcatagtact
61 tgttgtacta attctgatag attttaccgc ttagccaatg agtgtgtctca agtgtaagt
121 gagtatgtct tatcgggagg ggggtattat gttaaaccag gtggtacgag tagtggtgat

181 gcaactactg cttatgcca tagtggtttt aacatattac aagccactac cgctaagtgt
241 agtgcactaa tgatgctaa tggtaacacg atcgtagatc gtgaaataaa ggatagcaa
301 tttgactgt ataccaatgt gtatagaaaa gtatgctctg atcctaaatt tgttgacaag
361 tactacgat ttcttaataa acactttct atgatgatt

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LOCUS MN312727 401 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152690 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312727

VERSION MN312727

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152690"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>401

/gene="RdRp"

CDS <1..>401

/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88347"
/translation="AMPNMCRI L ASLILARKHSTCCTNSDRFYRLAN ECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFN I L QATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPK F VDKYYAFLNKHFSMMI"

ORIGIN

1 gagctatgcc taatgtgtg cgcatttag cgtcattgat tttggcacgt aagcatagta
61 cttgtgttac taattctgat agattttacc gettagccaa tgatgtgct caagtgttaa
121 gtgagtatgt cttatgcgga ggggggttatt atgttaaacc aggtggtacg agtagtggtg
181 atgcaactac tgcttatgcc aatagtggtt ttaacatatt acaagccact accgctaag
241 ttagtgact aatgagtgt aatggttaaca cgatcgtaga tcgtgaaata aaggatagc
301 aatttgact gtataccaat gtgtatagaa aagtagtgcc tgatcctaaa tttgtgaca
361 agtactacgc atttctaat aaacactttt ctatgatgat t

//

LOCUS MN312728 411 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152691 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312728

VERSION MN312728

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152691"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>411

/gene="RdRp"

CDS <1..>411

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88348"

/translation="KCDRAMPNMCRLASLILARKHSTCCTNSDRFYRLANCAQVLS

EYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKD

MQFDLYTNVYRKVVPDPKFVDKYYAFLNKHFSMMI"

ORIGIN

1 aaatgtgaca gagctatgcc taatatgtgt cgcatttag cgtcattgat tttggcacgt
61 aagcatagta cttgtgtac taattctgat agattttacc gcttagccaa tgagtgtgct
121 caagtgttaa gtgagtatgt cttatgcgga ggggggtatt atgttaaacc aggtggtacg
181 agtagtggtg atgcaactac tgcttatgcc aatagtgttt ttaacatatt acaagccact
241 accgctaag ttagtgact aatgagtct aatggaaca cgatcgtaga tcgtgaaata
301 aaggatatgc aatttgactt gtataccaat gtgtatagaa aagtagtgcc tgatcctaaa
361 ttgttgaca agtactacgc atttctaat aaacactttt ctatgatgat t

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LOCUS MN312729 401 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152692 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312729

VERSION MN312729

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 401)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..401

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152692"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>401

/gene="RdRp"

CDS <1..>401

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88349"

/translation="AMPNMCRI L A S L I L A R K H S T C C T N S D R F Y R L A N E C A Q V L S E Y V L

C G G G Y Y V K P G G T S S G D A T T A Y A N S V F N I L Q A T T A N V S A L M S A N G N T I V D R E I K D M Q F D

L Y T N V Y R K V V P D P K F V D K Y Y A F L N K H F S M M I "

ORIGIN

1 gagctatgcc taatatgtgt cgcatttag cgtcattgat tttggcacgt aagcatagta
61 cttgtgttac taattctgat agatttacc gcttagccaa tgagtgtgct caagtgttaa
121 gtgagtatgt cttatgcgga ggggggttatt atgttaaacc aggtggtacg agtagtggtg
181 atgcaactac tgcttatgcc aatagtgttt ttaacatatt acaagccact accgctaata
241 ttagtgcact aatgagtgtc aatgtaaca cgatcgtaga tcgtgaaata aaggatatgc
301 aatttgactt gtataccaat gtgtatagaa aagtagtgcc tgatcctaaa tttgttgaca
361 agtactacgc atttctaat aaacactttt ctatgatgat t

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LOCUS MN312730 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152694 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312730

VERSION MN312730

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES

Location/Qualifiers

source 1..408
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152694"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>408
/gene="RdRp"
CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88350"
/translation="CDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDM
QFDLYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctaa tatgtgtcgc attttagcgt cattgatttt ggcacgtaag
61 catagtactt gttgtactaa ttctgataga tttaccgct tagccaatga gttgtgetcaa
121 gtgtaagtg agtatgtctt atgcggaggg ggttattatg ttaaaccagg tggtacgagt
181 agtggatg caactactgc ttatgccaat agtgtttta acatattaca agccactacc
241 gctaagtta gtgcactaat gtagtctaat ggtaacacga tcttagatcg tgaataaag
301 gatatgcaat ttgacttgta taccaatgtg tatagaaaag tagtgectga tctaaattt
361 gttgacaagt actacgcatt tcttaataaa cacttttcta tgatgatt

//

LOCUS MN312731 389 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152715 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312731

VERSION MN312731

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 389)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 389)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..389

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152715"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>389

/gene="RdRp"

CDS <1..>389

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88351"

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C G G G Y Y V K P G G T S S G D A T T A Y A N S V F N I L Q A T T A N V S A L M S A N G N T I V D R E I K D M Q F D

L Y T N V Y R K V V P D P K F V D K Y Y A F L N K H F S "

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tgttgtaacta attctgatag attttaccgc ttagccaatg agtgtgtctca agtgtaagt
121 gagtatgtct tatcgaggagg ggggtattat gtaaaccag gtggtacgag tagtggtgat
181 gcaactactg cttatgcaa tagtgtttt aacatattac aagccactac cgctaatgtt
241 agtgcactaa tgagtgtctaa tgtaacacg atcgtagatc gtgaaataaa ggatagcaa
301 ttgactgtg ataccaatgt gtagagaaaa gtagtgctg atcctaaatt tgtgacaag
361 tactacgcat ttcttaataa acactttc

//

LOCUS MN312732 399 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152762 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312732

VERSION MN312732

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..399
 /organism="Tylonycteris bat coronavirus HKU4"
 /mol_type="genomic RNA"
 /isolate="152762"
 /host="Tylonycteris pachypus"
 /db_xref="taxon:694007"
 /country="China"
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 /gene="RdRp"
CDS <1..>399
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 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88352"
 /translation="AMPNMCRI L ASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPK FVDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg catttagcgc tcattgattt tggcacgtaa gcatagtact
61 tttgtacta attctgatag attttaccgc ttagccaatg agtgtgctca agtgtaagt
121 gagtatgtcc tatgctggagg gggttattat gttaaaccag gtggtacgag tagtggtgac
181 gcaactactg cttatgcca tagtgtttt aacatattac aagccactac cgtaatgtt
241 agtgcactaa tgagtgctaa tgtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgattgtg ataccaatgt gtatagaaa gtagtgctg atcctaaatt tgttgacaag
361 tactacgcat ttcttaataa acacttttct atgatgatt

//

LOCUS MN312733 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152767 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312733

VERSION MN312733

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399
 /organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"
/isolate="152767"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>399
/gene="RdRp"
CDS <1..>399
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88353"
/translation="AMPNMCRI L ASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgctg cattttagcg tcattgatt tggcacgtaa gcatagtact
61 tgttgacta attctgatag atttaccgc ttagccaatg agtgtgctca agtgtaagt
121 gagtatgtcc tatgcggagg gggttattat gtaaaccag gtggtacgag tagtggtgac
181 gcaactactg cttatgcaa tagtgtttt aacatattac aagccactac cgctaattgt
241 agtgactaa tgagtgctaa tggaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgattgt ataccaatgt gtatagaaa gtagtgcctg atcctaaatt tgttgacaag
361 tactagcat ttctaataa acattttct atgatgatt

//

LOCUS MN312734 399 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152768 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312734

VERSION MN312734

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="152768"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>399
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CDS <1..>399
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88354"
/translation="AMPNMCRI L ASLILARKHSTCCTNSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFVDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tgtgtacta attctgatag attttaccgc ttaccaatg agtgtgctca agtgtaagt
121 gagtatgtcc tatgcggagg gggttattat gtaaaccag gtggtacgag tagtggtgac
181 gcaactactg cttatgcaa tagtgtttt aacatattac aagccactac cgetaatgtt
241 agtgcactaa tgagtgctaa tgtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 ttgtattgt ataccaatgt gtagaataaa gtatgcctg atcctaaatt tgttgacaag
361 tactagcat ttctaataa acactttct atgatgatt

//

LOCUS MN312735 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152769 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312735

VERSION MN312735

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152769"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>399
/gene="RdRp"

CDS <1..>399
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88355"
/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANCAQVLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tgttgtaacta attctgatag attttaccgc ttagccaatg agtgtgtctca agtgtaagt
121 gagtatgtcc tatgcggagg gggttattat gttaaaccag gtggtacgag tagtggtgac
181 gcaactactg cttatgcca tagtgttttt aacatattac aagccactac cgctaatggt
241 agtgcactaa tgagtgtctaa tggtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgattgt ataccaatgt gtatagaaa gtagtgctg atcctaaatt tgttgacaag
361 tactacgcat ttcttaataa acactttct atgatgatt

//

LOCUS MN312736 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152770 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312736

VERSION MN312736

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152770"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>399
/gene="RdRp"

CDS <1..>399
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88356"
/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANCAQVLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tgttgtaacta attctgatag atttaccgc ttagccaatg agtgtgtctca agtgtaagt
121 gagtatgtcc tatgctggagg gggttattat gtaaaccag gtggtacgag tagtggtgac
181 gcaactactg cttatgcca tagtgtttt aacatattac aagccactac cgctaatgtt
241 agtgcactaa tgagtgtctaa tgtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgattgt ataccaatgt gtagataaaa gtagtgcctg atcctaaatt tgttgacaag
361 tactacgcat ttcttaataa acacttttct atgatgatt

//

LOCUS MN312737 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 152771 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312737

VERSION MN312737

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="152771"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>399
/gene="RdRp"

CDS <1..>399
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/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88357"
/translation="AMPNMCRIASLILARKHSTCCTNSDRFYRLANCAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQFD
LYTNVYRKVVPDPKFDKYYAFLNKHFSMMI"

ORIGIN

1 gctatgccta atatgtgtcg cattttagcg tcattgattt tggcacgtaa gcatagtact
61 tgttgtaacta attctgatag atttaccgc ttagccaatg agtgtgtctca agtgtaagt
121 gagtatgtcc tatgctggagg gggttattat gtaaaccag gtggtacgag tagtggtgac
181 gcaactactg cttatgcca tagtgtttt aacatattac aagccactac cgctaatgtt

241 agtgcactaa tgagtgctaa tggtaacacg atcgtagatc gtgaaataaa ggatatgcaa
301 tttgattgt ataccaatgt gtatagaaaa gtatgcctg atcctaaatt tgttgacaag
361 tactacgcat ttctaataa acactttct atgatgatt

//

LOCUS MN312738 377 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 8548 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312738

VERSION MN312738

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..377

/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8548"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>377

/gene="RdRp"

CDS <1..>377

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88358"

/translation="CDRAMPNMLRILASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVDHEFVDEFT"

ORIGIN

1 atgtgataga gccatgcta acatgcttag aatattggcc tctctgttc ttgctcgcaa
61 acatagcact tgctgtaact tatcacaccg ttctacagg ttagctaacg agtgtgctca
121 ggtattaagt gagatggtca tgtgtggcgg ttactatat gttaaaccag gtggaacatc
181 atcagtgat gctacaactg cttatgctaa tagtgtttt aacatttgc aagctgttac
241 agccaatgta aatgcacttc ttcaactga tggcaacaag atcgccgaca agtatgttcg
301 caatctcaa cacagacttt atgagtgtct ctacagaaat agggatgtag atcatgaatt
361 cgtggatgaa ttacgc

//

LOCUS MN312739 376 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 8561 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312739

VERSION MN312739

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8561"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

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gene <1..>376

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CDS <1..>376

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/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88359"

/translation="CDRAMPNMLRILASLVLARKHSTCCNLSHRFYRLANECAQVLSE

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QHRLYECLYRNRDVEDHEFVDELR"

ORIGIN

1 atgtgataga gccatgccta acatgcttag aatattggcc tctctgttc ttgctcgcaa
61 acatagcact tgctgtaact tatcacaccg ttctacagg ttagctaacg agtgtgctca
121 ggtattaagt gagatggca tgtgtggcgg ttactatat gtaaaccag gtggaacatc
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241 agccaatgta aatgcactc ttcaactga tggcaacaag atcgccgaca agtatgttcg
301 caatctcaa cacagacttt atgagtgtct ctacagaaat agggatgtag atcatgaatt
361 cgtggatgaa ttacgc

//

LOCUS MN312740 376 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 8572 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312740

VERSION MN312740

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8572"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>376

/gene="RdRp"

CDS <1..>376

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88360"

/translation="CDRAMPNMLRILASLVLARKHSTCCNLSHRFYRLANCAQVLSE

MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL

QHRLYECLYRNRDVDHEFVDELR"

ORIGIN

1 atgtgataga gccatgcta acatgcttag aatattggcc tctcttgctc ttgctcgcaa
61 acatagcact tgctgtaact taccacaccg ttctacagg ttagctaacg agtgtgctca
121 ggtattaagt gagatggca tgtgtggcgg ttactatat gttaaaccag gtggaacatc
181 atcagtgat gctacaactg cttatgctaa tagtgTTTT aacattgtc aagctgttac
241 agccaatgta aatgcacttc ttcaactga tggcaacaag atcggcgaca agtatgttcg
301 caatctcaa cacagacttt atgagtgtct ctacagaaat agggatgtag atcatgaatt
361 cgtggatgaa ttacgc

//

LOCUS MN312741 377 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 8586 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312741

VERSION MN312741

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 377)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..377
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8586"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>377
/gene="RdRp"
CDS <1..>377
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88361"
/translation="CDRAMPNMLRILASLVLARKHSTCCNLSHRFYRLANECAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNGKIADKYVRNL
QHRLYECLYRNRDVDHEFVDELR"

ORIGIN

1 aatgtgatag agccatgcct aacatgctta gaatttggc ctctctgtt cttgctcgca
61 aacatagcac ttgctgtaac ttatcacacc gttctacag gttagctaac gagtgtgctc
121 aggtattaag tgagatggc atgtgtggcg gttcactata tgtaaacca ggtggaacat
181 catcaggtga tgctacaact gcttatgcta atagtgttt taacattgt caagctgta
241 cagccaatgt aatgcaact cttcaactg atggcaaaa gatcgccgac aagtatgttc
301 gcaatctca acacagactt tatgagtgc tctacagaaa tagggatga gatcatgaat
361 tcgtggatga attacgc

//

LOCUS MN312742 343 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 8794 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312742

VERSION MN312742

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 343)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 343)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..343
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8794"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>343
/gene="RdRp"
CDS <1..>343
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88362"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDV"

ORIGIN

1 agagccatgc ctaacatgct taggataatg gcctctcttg ttcttgctcg caaacatagc
61 acttgctgca acttaccaca ccgtttctat aggttagcta acgagtgtgc gcaagtatta
121 agtgagatgg tcattgtgtg cggtcacta tatgttaaac caggtggaac atcatcaggt
181 gatgctacaa ctgcttatgc taatagtgtt ttaatatatt gtcaagctgt tacagctaat
241 gtaaatgcac ttctctcaac tgatggtaat aagatagctg acaagtatgt ccgcaatcta
301 caacacagac tttacgagtg tctctacaga aatagggatg tag

//

LOCUS MN312743 368 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8807 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312743

VERSION MN312743

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 368)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
 source 1..368
 /organism="Tylonycteris bat coronavirus HKU4"
 /mol_type="genomic RNA"
 /isolate="8807"
 /host="Tylonycteris pachypus"
 /db_xref="taxon:694007"
 /country="China"
 gene <1..>368
 /gene="RdRp"
 CDS <1..>368
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88363"
 /translation="RAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLSEYV
 LCGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQF
 DLYINVYRKVVPDPKFVTSTT"

ORIGIN

1 agagctatgc ctaatatgtg tcgcatttta gcgctattga ttttggcacg taagcatagt
 61 acttgttga ctaattctga taggttctac cgcctagcta atgagtgtgc tcaagtgtta
 121 agtgagtatg tcctatgcgg aggggggttat tatgttaaac cagtggtgtac gagtagtggg
 181 gatgcaacta ctgcttatgc caatagtgtt tttaacatat tacaagccac caccgctaat
 241 gttagtgcac taatgagtgc taatggtaat acgatcatag atcgtgaaat aaaggatatg
 301 caatttgatt tgtatatcaa tgtatataga aaagtagtgc ctgatcctaa atttgtgaca
 361 agtactac

//

LOCUS MN312744 376 bp RNA linear VRL 07-NOV-2019
 DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8819 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312744

VERSION MN312744

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376
 /organism="Tylonycteris bat coronavirus HKU4"
 /mol_type="genomic RNA"
 /isolate="8819"

/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>376
/gene="RdRp"
CDS <1..>376
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88364"
/translation="KCDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANECAQVLS
EYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIKD
MQFDLYINVYRKVVPDPKLWQVL"

ORIGIN

1 aaatgtgac gtctatgcc taatatgtg cgcatttag cgtcattgat ttggcacgt
61 aagcatagta cttgtgtac taattctgat aggttctacc gcttagccaa tgagtgtgct
121 caagtgttaa gtgagtatgt cctatgcgga ggagggtatt atgttaaacc aggtggtacg
181 agtagtggtg atgcaactac tgcttatgcc aatagtgttt ttaacatatt acaagccacc
241 accgctaata ttagtgactc tatgagtgc aatggtaata cgatcataga tcgtgaaata
301 aaggatatgc aatttgactt gtatatcaat gtatatagaa aagtagtgcc tgatcctaaa
361 ttgtggcaag tactac

//

LOCUS MN312745 391 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8820 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312745

VERSION MN312745

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 391)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 391)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..391
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="8820"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>391
/gene="RdRp"

CDS <1..>391
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88365"
/translation="GWDFPKCDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANEC
AQVLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIID
REIKDMQFDLYINVYRKVVPDPKWLQVL"

ORIGIN

1 ggttgggatt ttctaaatg tgatcgtgct atgcctaata tgtgtcgcatt ttagcgtca
61 ttgattttgg cacgtaagca tagtacttgt tgtactaatt ctgatagggt ctaccgctta
121 gccaatgagt gtgctcaagt gttaagttag tatgtcctat gcggaggagg ttattatgtt
181 aaaccagggtg gtaccagtag tgggtgatgca actactgctt atgccaatag tgttttaac
241 atattacaag ccaccaccgc taatgttagt gcacttatga gtgctaattg taatcagtc
301 atagatcgtg aataaagga tatgcaattt gactgtata tcaatgtata tagaaaagta
361 gtgctgctg ctaaattgtg gcaagtacta c

//

LOCUS MN312746 376 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8821 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312746

VERSION MN312746

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 376)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..376
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="8821"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"

gene <1..>376
/gene="RdRp"

CDS <1..>376
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88366"

/translation="KCDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLS
EYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIKD
MQFDLYINVYRKVVDPKLVQVL"

ORIGIN

1 aaatgtgac gtgctatgcc taatatgtg cgcatttag cgtcattgat tttggcacgt
61 aagcatagta cttgtgtac taattctgat aggttctacc gcttagccaa tgagtgtgct
121 caagtgttaa gtgagtatgt cctatgcgga ggagggtatt atgttaaacc aggtggtacg
181 agtagtggtg atgcaactac tgcttatgcc aatagtgttt ttaacatatt acaagccacc
241 accgctaag ttagtgact tatgagtct aatggtaata cgatcataga tcgtgaaata
301 aaggatagc aatttgact gtatatcaat gtatatagaa aagtagtgcc tgatcctaaa
361 ttgtggcaag tactac

//

LOCUS MN312747 369 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8822 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312747

VERSION MN312747

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 369)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..369

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="8822"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>369

/gene="RdRp"

CDS <1..>369

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88367"

/translation="PKCDRAMPNMCRILASLILARKHSTCCTNSDRFYRLANCAQVLS

SEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIK

DMQFDLYINVYRKVVDPDLNCG"

ORIGIN

1 cctaatgtg atcgtgctat gcctaataag tgcgcattt tagcgcatt gattttggca

61 cgtaagcata gtaactgttg tactaattct gataggttct accgcttagc caatgagtgt
121 gctcaagtgt taagtgagta tgcctatgc ggaggaggtt attatgtaa accagtggtg
181 acgagtagtg gtgatgcaac tactgcttat gccaatagtg ttttaacat attacaagcc
241 accaccgcta atgttagtgc acttatgagt gctaatgta atacgatcat agatcgtgaa
301 ataaaggata tgcaattga cttgtatata aatgtatata gaaaagtagt gcctgaccta
361 aattgtggc

//

LOCUS MN312748 358 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate 8823 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312748

VERSION MN312748

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="8823"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88368"

/translation="VYPNMCRLGSLILARKHSTCCTNSDRFYRLANECAQVLSEYVL

CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQFD

LYINVYRKVVPDPKLWQ"

ORIGIN

1 tgtgtactct aatatgtgtc gcatttagg gtcattgatt ttggcacgta agcatagtac

61 ttgtgtact aattctgata ggttctaccg ctagccaat gactgtgtc aagtgttaag

121 tgagtatgtc ctatgaggag gagggtatta tgtaaacca ggtggtacga gtagtggtga

181 tgcaactact gcttatgcca atagtgttt taacatatta caagccacca ccgctaattg

241 tagtgactt atgagtgtc atggaatac gatcatagat cgtgaaataa aggatatgca

301 attgacttg tatatcaatg tatatagaaa agtagtgctt gatcctaataa tgtggcaa

//

LOCUS MN312749 362 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8842 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312749
VERSION MN312749

KEYWORDS .

SOURCE Bat MERS-like coronavirus
ORGANISM Bat MERS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 362)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 362)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..362
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8842"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"
gene <1..>362
/gene="RdRp"
CDS <1..>362
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88369"
/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC
GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKEIRDMQFDL
YVNVYRRNMPDQKFVTGT"

ORIGIN

1 tatgcctaac atgtgtagga tttcgcgctc tctgatttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgtta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgttt atagacgtaa tatgcctgat caaaagtttg tgacaggtac
361 ta

//

LOCUS MN312750 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8845 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312750

VERSION MN312750

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8845"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88370"

/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC

GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKIIRDMQFDL

YVNVYRRNMPDQKFVTGT"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcac tctgatttg gcacgcaaac atgttacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgtta tgcgggtggtg gttactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaaccgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaata gcaacaagat tgttgacaaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgttt atagacgtaa tatgctctgac caaaagttag tgacaggtac

//

LOCUS MN312751 362 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8846 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312751

VERSION MN312751

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 362)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..362
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/mol_type="genomic RNA"
/isolate="8846"
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/db_xref="taxon:2664423"
/country="China"
gene <1..>362
/gene="RdRp"
CDS <1..>362
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88371"
/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC
GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKKEIRDMQFDL
YVNVYRRNMPDQKFVTGT"

ORIGIN

1 tatgcctaac atgtgtagga tttcgcgctc tctgatttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtttta tgcggtggtg gctactacgt caagccagga ggtacagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaatgttt atagacgtaa tatgcctgat caaaagtttg tgacaggtag
361 ta

//

LOCUS MN312752 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8859 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312752

VERSION MN312752

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8859"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"
gene <1..>360
/gene="RdRp"
CDS <1..>360
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88372"
/translation="MPNMCRIFASLILARKHGTCCTTRDRFYRLANCAQVLSEYVLC
GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFDL
YVNVYRRNMPDQKFVTGT"

ORIGIN

1 tatgcctaac atgtgtagga tttcgcgctc tctgatttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgtta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgtaacg gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgat gtaaatgtt atagacgtaa tatgcctgat caaaagtttg tgacaggtac

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LOCUS MN312753 322 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8863 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312753

VERSION MN312753

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 322)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 322)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..322
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8863"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"
gene <1..>322
/gene="RdRp"
CDS <1..>322
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88373"
/translation="MPNMCRIFASLILARKHGTCCTTRDRFYRLANECAQVLSEYVLC
GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMHFDL
YVNVY"

ORIGIN

1 tatgcctaac atgtgtagga tttcgcgctc tctgattttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgtta tgcgggtggg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcattt
301 tgatctgtat gtaaatgttt at

//

LOCUS MN312754 345 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8866 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312754

VERSION MN312754

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 345)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 345)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..345
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="8866"

/host="Vespertilio sinensis"
/db_xref="taxon:1805463"
/country="China"
gene <1..>345
/gene="RdRp"
CDS <1..>345
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88374"
/translation="MPNMLRIFASLILARKHTTCCTVSEYYRLANECAQVLSEMVLC
GGALYVKPGGTSSGDATTAYANSVFNICQAVTANISALLAANGNKIVDVYIRDQLQRKL
YANVYRSVHVDY"

ORIGIN

1 tatgcctaat atgttgcgta ttttcgcatc attgattta gccagaaagc acacgacgtg
61 ttgtactgta agtgaacgat actacagact ggctaatgag tgcgctcaag tattgagtga
121 gatggttcta tgtggtggtg cttgtatgt gaaaccaggt ggtacttct cgggtgatgc
181 aaccactgca tatgcaaatt ctgtttcaa catctgtaa gcagtaacgg ccaacatcag
241 tccttgcta gcagctaatg gaaacaagat agtcgatgtt tacattcgag acttacagcg
301 taaactgat gcgaatgtct atcgtagtgt ccatgttgat tataa

//

LOCUS MN312755 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8867-1 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312755

VERSION MN312755

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="8867-1"
/host="Vespertilio sinensis"
/db_xref="taxon:1805463"
/country="China"
gene <1..>387
/gene="RdRp"
CDS <1..>387

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88375"
/translation="MPNMLRIFASLILARKHTTCCTVSEYYRLANECAQVLSEMVLC
GGALYVKPGGTSSGDATTAYANSVFNICQAVTANISALLAANGNKIVDVYIRDQLQRKL
YANVYRSVHVDYKFDVDEYYAFLRKHFS"

ORIGIN

1 tatgcctaat atgttgcgta ttttcgcatc attgatttta gccagaaagc acacgacgtg
61 ttgtactgta agtgaacgat actacagact ggctaatgag tgcgctcaag tattgagtga
121 gatggttcta tgtggtgggtg ctttgtatgt gaaaccaggt ggtacttctt ccggtgacgc
181 aaccactgca tatgcaaatt ctgtttcaa catctgtaa gcagtaacgg ccaacatcag
241 tgccttgcta gcagctaata gaaacaagat agtcgatgtt tacattcgag acttacagcg
301 taaactgtat gcgaatgtct atcgtagtgt ccatgttgat tataagttag tagatgagta
361 ctacgcattt ttgcgtaaac acttttc

//

LOCUS MN312756 411 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 8867-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312756

VERSION MN312756

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411
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/mol_type="genomic RNA"
/isolate="8867-2"
/host="Vespertilio sinensis"
/db_xref="taxon:1805463"
/country="China"

gene <1..>411
/gene="RdRp"

CDS <1..>411
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88376"
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VLSEMVLCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANISALLAANGNKIVDVY
IRDLQRKLYANVYRSVHVVDYK FVDEYYAFLRKHFS"

ORIGIN

1 tgattatcct aatgtgata gagctatgcc taatatgttg cgtattttcg catcattgat
61 tttagccaga aagcacacga cgtgtgttac tgtaagtga cgatactaca gactggctaa
121 tgagtacgct caagtattga gtgagatggt tctatgtggt ggtgctttgt atgtgaaacc
181 aggtggact tectccgggt atgcaaccac tgcatacgca aattctgttt tcaacatctg
241 tcaagcagta acggccaaca tcagtgcctt gctagcagct aatggaaaca agatagtcga
301 tgtttacatt cgagacttac agcgtaaact gtatgcgaat gtctatcgta ggtgccatgt
361 tgattataag ttcgtagatg agtactacgc atttttgcgt aaacactttt c

//

LOCUS MN312757 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8868 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312757

VERSION MN312757

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat MERS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8868"

/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88377"

/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC

GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKEIRDMQFDL

YVNVYRRNMPDQKQKFTGT"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcac tctgattttg gcacgcaaac atgtacttg
61 ctgcactacc agagatagat ttatcgctt agccaatgag tgcgctcagg ttttaagtga

121 gtatgtgta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgat gtaaatgtt atagacgtaa tatgctgat caaaagtcg tgacaggtac

//

LOCUS MN312758 411 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8869-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312758

VERSION MN312758

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 411)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..411

/organism="Bat MERS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8869-1"

/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

gene <1..>411

/gene="RdRp"

CDS <1..>411

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88378"

/translation="DYPKCDRAMPNMCRIFASLILARKHGTCCTTRDRFYRLANCAQ

VLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKE

IRDMQFDLYVNVYRRNMPDQKFVDRYYAFLNKNFS"

ORIGIN

1 tgattatcct aatgtgata gagctatgcc taacatgtgt aggattttg catctctgat
61 tttggcagc aaacatggta cttgctgcac taccagagat agattttatc gettagccaa
121 tgagtgcgct caggttttaa gtgagtatgt gttatgcggt ggtggctact acgcaagcc
181 aggaggtacg agtagtggtg atgccacaac tgcataatgcc aatagtgtgt ttaacatgtt
241 gcagggcaca actgctaag tgagcgcact tatgggtgct aatggcaaca agattgttga
301 taaagaaatc agagacatgc agtttgatct gtatgttaat gttatagac gtaatatgcc
361 tgatcaaaag ttcgttgaca ggtactatgc atttctaat aagaattct c

//

LOCUS MN312759 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8869-2 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312759

VERSION MN312759

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387

/organism="Bat MERS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8869-2"

/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

gene <1..>387

/gene="RdRp"

CDS <1..>387

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

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ORIGIN

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121 gtatgtgta tgcggtggtg gctactacgt caagccagga ggtacagta gtggtgatgc
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301 tgatctgat gtaatgttt atagacgtaa tatgctgat caaaagtgc ttgacagga
361 ctatgcatt ctaataaga atttctc

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LOCUS MN312760 365 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8870 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312760

VERSION MN312760

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..365

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8870"
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/country="China"

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CDS <1..>365

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ORIGIN

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181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgat gtaaatgtt atagacgtaa tatgcctgat caaagtttg tgacaggtac
361 tatgc

//

LOCUS MN312761 361 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8874 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312761

VERSION MN312761

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361
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/mol_type="genomic RNA"
/isolate="8874"
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/country="China"
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CDS <1..>361
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YVNVYRRNMPDQKFVTGT"

ORIGIN

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121 gtatgtgta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaata gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaatgttt atagacgtaa tatgcctgat caaagtttg tgacaggtac
361 t

//

LOCUS MN312762 358 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8875 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312762

VERSION MN312762

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Bat MERS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8875"

/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

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/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=2

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YVNVYRRNMPDQKFVTG"

ORIGIN

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181 cacaactgca tatccaata gtgtgttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgtt atagacgtaa tatgctgat caaaagttg tgacaggt

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LOCUS MN312763 361 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8889 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312763

VERSION MN312763

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..361
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YVNVYRRNMPDQKFVTGT"

ORIGIN

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61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgtta tgcgggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcaactatg ggtgctaacg gcaacaagat tgttgataaa gaaatcagag acatgcagtt
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361 t

//

LOCUS MN312764 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8891 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.

ACCESSION MN312764

VERSION MN312764

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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241 cgcactcatg ggtgctaag gcaacaagat tgttgacaaa gaaatcagag acatgcagtt
301 tgatctgtat gtaattgtt atagacgtaa tatgcctgac caaaagtttg tgacaggta

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LOCUS MN312765 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8892 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312765

VERSION MN312765

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
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ORIGIN

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241 cgcacttatg ggtgctaag gcaacaagat tgttgacaaa gaaatcagag acatgcagtt
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LOCUS MN312766 363 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8895 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312766

VERSION MN312766

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..363
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CDS <1..>363
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YVNVYRRNMPDQKFVTGT"

ORIGIN

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361 tat

//

LOCUS MN312767 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8896 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312767

VERSION MN312767

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

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YVNVYRRNMPDQKFVTGT"

ORIGIN

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//

LOCUS MN312768 361 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8904 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312768

VERSION MN312768

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361

/organism="Bat MERS-like coronavirus"

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/host="Vespertilio sinensis"

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/country="China"

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/gene="RdRp"

CDS <1..>361

/gene="RdRp"

/codon_start=2

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YVNVYRRNMPDQKFVTGT"

ORIGIN

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361 t

//

LOCUS MN312769 361 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8905 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312769
VERSION MN312769
KEYWORDS .

SOURCE Bat MERS-like coronavirus
ORGANISM Bat MERS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
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361 t
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LOCUS MN312770 361 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8906 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312770
VERSION MN312770

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
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/db_xref="taxon:2664423"
/country="China"

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/gene="RdRp"

CDS <1..>361

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/protein_id="QGA88390"
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ORIGIN

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241 cgcaactatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgttt atagacgtaa tatgcctgat caaaagtttg tgacaggtac
361 t

//

LOCUS MN312771 352 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8907 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312771

VERSION MN312771

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..352

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/isolate="8907"

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YVNVYRRNMPDQKFV"

ORIGIN

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241 cgcaacttat ggtgctaacg gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaattgtt atagacgtaa tatgcctgat caaaagtttg tg

//

LOCUS MN312772 359 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8909 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312772

VERSION MN312772

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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/host="Vespertilio sinensis"
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CDS <1..>359
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YVNVYRRNMPDQKFVTG"

ORIGIN

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121 gtatgtgta tgcggtggtg gttactacgt caagccagga ggtacgagta gtggtgatgc
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241 cgcactcatg ggtgctaag gcaacaagat tgttgacaaa gaaatcagag acatgcagtt
301 tgatctgat gtaatgtt atagacgtaa tatgcctgac caaaagttg tgacagga

//

LOCUS MN312773 361 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8911 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312773

VERSION MN312773

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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ORIGIN

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241 cgcgcttatg ggtgctaag gcaacaagat tgttgacaaa gaaatcagag acatgcagtt
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361 t

//

LOCUS MN312774 360 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8917 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.

ACCESSION MN312774

VERSION MN312774

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360
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ORIGIN

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301 tgatctgtat gtaattgtt atagacgtaa tatgctctgat caaaagtttg tgacaggtac

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LOCUS MN312775 361 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8918 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312775

VERSION MN312775

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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CDS <1..>361

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ORIGIN

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361 t

//

LOCUS MN312776 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8920 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312776

VERSION MN312776

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

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CDS <1..>360

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YVNVYRRNMPDQKFVTGT"

ORIGIN

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301 tgatctgat gtaattgtt atagacgtaa tatgcctgat caaaagttg tgacaggtac

//

LOCUS MN312777 348 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8921 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312777

VERSION MN312777

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..348

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/mol_type="genomic RNA"

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ORIGIN

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301 tgatctgtat gtaaatgttt atagacgtaa tatgcctgat caaaagtt

//

LOCUS MN312778 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8923 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312778

VERSION MN312778

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407

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/country="China"

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CDS <1..>407

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ORIGIN

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121 atgagtgcgc tcaggttta agtgagtatg tgttatgctg tggtgctac tacgtcaagc
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241 tgcaggcgac aactgctaag gtgagcgac ttatgggtgc taatggcaac aagattgtg
301 ataaagaaat cagagacatg cagttgatc tgatgttaa ttttataga cgtaatatgc
361 ctgatcaaaa gtttggaca ggtactatgc attctattg ggagccc

//

LOCUS MN312779 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8924 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312779

VERSION MN312779

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae; Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat MERS-like coronavirus"

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/isolate="8924"

/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88399"

/translation="MPNMCRIFASLILARKHGTCCCTTRDRFYRLANECAQVLSEYVLC

GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFDL

YVNVYRRNMPDQKFVTGT"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcac tctgatttg gcacgcaaac atggtactg

61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga

121 gtatgtgta tgcggtggtg gttactacgt caagccagga ggtacgagta gtggtgatgc

181 cacaaccgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag

241 cgcactcatg ggtgctaag gcaacaagat tgttgacaaa gaaatcagag acatgcagtt

301 tgatctgtat gtaatgttt atagacgtaa tatgcctgac caaaagttag tgacaggtac

//

LOCUS MN312780 361 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8933 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312780

VERSION MN312780

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 361)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..361

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8933"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"

gene <1..>361

/gene="RdRp"

CDS <1..>361

/gene="RdRp"
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/product="RNA-dependent RNA polymerase"
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YVNVYRRNMPDQKFVTGT"

ORIGIN

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121 gtatgtgtta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaacg gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgttt atagacgtaa tatgcctgat caaaagtttg tgacaggtac
361 t

//

LOCUS MN312781 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8935 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312781

VERSION MN312781

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 360)
 AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
 Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
 FEATURES Location/Qualifiers
 source 1..360
 /organism="Bat MERS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="8935"
 /host="Vespertilio sinensis"
 /db_xref="taxon:2664423"
 /country="China"
 gene <1..>360
 /gene="RdRp"
 CDS <1..>360
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88401"
 /translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC
 GGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFDL
 YVNVYRRNMPDQKFVTGT"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcac tctgatttg gcacgcaaac atgttacttg
 61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
 121 gtatgtgtta tgcggtggtg gttactacgt caagccagga ggtacgagta gtggtgatgc
 181 cacaaccgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
 241 cgcacttatg ggtgctaata gcaacaagat tgttgacaaa gaaatcagag acatgcagtt
 301 tgatctgtat gtaattgtt atagacgtaa tatgctctgac caaaagtctg tgacaggtac

//

LOCUS MN312782 359 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat MERS-like coronavirus isolate 8937 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.
 ACCESSION MN312782
 VERSION MN312782
 KEYWORDS .
 SOURCE Bat MERS-like coronavirus
 ORGANISM Bat MERS-like coronavirus
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Merbecovirus.
 REFERENCE 1 (bases 1 to 359)
 AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
 Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 359)
 AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
 Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..359
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8937"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"
gene <1..>359
/gene="RdRp"
CDS <1..>359
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88402"
/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC
GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKIIRDMQFDL
YVNVYRRNMPDQKFVTG"

ORIGIN

1 tatgcctaac atgtgtagga tttcgcgctc tctgatttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaattgtt atagacgtaa tatgctgat caaaagtttg tgacagta

//

LOCUS MN312783 399 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8941 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312783

VERSION MN312783

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8941"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"
gene <1..>399
/gene="RdRp"
CDS <1..>399
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/product="RNA-dependent RNA polymerase"
/protein_id="QGA88403"
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CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFD
LYVNVYRRNMPDQKFVDRYYAFLNKNFMMMI"

ORIGIN

1 gctatgccta acatgtgtag gattttgca tctctgattt tggcagcaa acatgttact
61 tgctgcacta ccagagatag atttatcgc ttagccaatg agtgcgctca ggttttaagt
121 gagtatgtgt tatcggtggg tggctactac gtcaagccag gaggtacgag tagtgggtgat
181 gccacaactg catatgcaa tagtgtgtt aacatttgc aggcgacaac tgctaattgt
241 agcgcactta tgggtgctaa tggcaacaag attgttgata aagaaatcag agacatgcag
301 tttgatctgt atgtaattgt ttatagacgt aatatgcctg atcaaaagtt cgttgacagg
361 tactatgcat ttcttaataa gaatttctct atgatgatt

//

LOCUS MN312784 366 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8942 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312784

VERSION MN312784

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..366
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8942"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"

gene /country="China"
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CDS <1..>366
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GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFDL
YVNVYRRNMPDQKFVTGTM"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcac tctgatttg gcacgcaaac atggacttg
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181 cacaactgca tatgccaata gtgtgttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgat gtaatgttt atagacgtaa tatgcctgat caaaagttcg tgacaggtac
361 tatgca

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LOCUS MN312785 359 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8946 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312785

VERSION MN312785

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
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/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"
gene <1..>359
/gene="RdRp"
CDS <1..>359
/gene="RdRp"

/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88405"
/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC
GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFDL
YVNVYRRNMPDQKFVTG"

ORIGIN

1 tatgcctaac atgtgtagga ttttcgcgtc tctgatttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgacaactg ctaatgtgag
241 cgcacttatg ggtgctaata gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgat gtaattgtt atagacgtaa tatgcctgat caaaagtttg tgacaggtg

//

LOCUS MN312786 364 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8947 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312786

VERSION MN312786

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..364

/organism="Bat MERS-like coronavirus"

/mol_type="genomic RNA"

/isolate="8947"

/host="Vespertilio sinensis"

/db_xref="taxon:2664423"

/country="China"

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/gene="RdRp"

CDS <1..>364

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88406"

/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANECAQVLSEYVLC

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YVNVYRRNMPDQKFVTGTM"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcctc tctgatttg gcacgcaaac atggtactg
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301 tgatctgat gtaatgttt atagacgtaa tatgcctgat caaaagttcg tgacaggtac
361 tatg

//

LOCUS MN312787 364 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate 8952 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312787

VERSION MN312787

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..364

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/mol_type="genomic RNA"
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/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"

gene <1..>364

/gene="RdRp"

CDS <1..>364

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88407"

/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANCAQVLSEYVLC

GGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQFDL

YVNVYRRNMPDQKFVTGTM"

ORIGIN

1 tatgcctaac atgtgtagga ttttgcgctc tctgatttg gcacgcaaac atggtactg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
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241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgttt atagacgtaa tatgcctgat caaaagtttg tgacaggta
361 tatg

//

LOCUS MN312788 365 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate 8955 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312788

VERSION MN312788

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 365)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..365

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="8955"
/host="Vespertilio sinensis"
/db_xref="taxon:2664423"
/country="China"

gene <1..>365

/gene="RdRp"

CDS <1..>365

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88408"

/translation="MPNMCRIFASLILARKHGTCTTRDRFYRLANCAQVLSEYVLC

GGGYYVKPGGTSSGDATTAYANSVFNILQAITANVSALMGANGNKIVDKAIRDMQFDL

YVNVYRRNMPDQKFVTGTM"

ORIGIN

1 tatgcctaac atgtgtagga ttttcgctc tctgatttg gcacgcaaac atggtacttg
61 ctgcactacc agagatagat ttaccgctt agccaatgag tgcgctcagg ttttaagtga
121 gtatgtgtta tgcggtggtg gctactacgt caagccagga ggtacgagta gtggtgatgc
181 cacaactgca tatgccaata gtgtgtttaa cattttgcag gcgataactg ctaatgtgag
241 cgcacttatg ggtgctaag gcaacaagat tgttgataaa gaaatcagag acatgcagtt
301 tgatctgtat gtaaatgttt atagacgtaa tatgcctgat caaaagtttg tgacaggta
361 tatgc

//

LOCUS MN312789 364 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 8956 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312789

VERSION MN312789

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae; Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="8956"

/host="Hipposideros pratti"

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CDS <1..>364

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ORIGIN

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LOCUS MN312790 345 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 8958 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312790

VERSION MN312790

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 345)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 345)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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LOCUS MN312791 364 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 8959 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312791

VERSION MN312791

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 364)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
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 241 tgccttgcta gcagctaag gaaacaagat agtcgatgtt tacattcgag acttacacgcg
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 LOCUS MN312792 367 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat betacoronavirus isolate 8960 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.
 ACCESSION MN312792
 VERSION MN312792
 KEYWORDS .
 SOURCE Bat betacoronavirus
 ORGANISM Bat betacoronavirus
 Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.
 REFERENCE 1 (bases 1 to 367)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrelío,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished
 REFERENCE 2 (bases 1 to 367)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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ORIGIN

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361 ctacgca

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LOCUS MN312793 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8966 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312793
VERSION MN312793
KEYWORDS .
SOURCE Bat betacoronavirus
ORGANISM Bat betacoronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.
REFERENCE 1 (bases 1 to 367)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 367)
AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K. J.,
Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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ORIGIN

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 LOCUS MN312794 364 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat betacoronavirus isolate 8967 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.

ACCESSION MN312794
 VERSION MN312794

KEYWORDS .

SOURCE Bat betacoronavirus
 ORGANISM Bat betacoronavirus
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 364)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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ORIGIN

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361 ctac

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LOCUS MN312795 363 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8978 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312795

VERSION MN312795

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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YANVYRSVHVVDYKFDVDEY"

ORIGIN

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361 cta

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LOCUS MN312796 363 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8986 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312796

VERSION MN312796

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 363)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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LOCUS MN312797 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8991 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312797

VERSION MN312797

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

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Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

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LOCUS MN312798 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8993 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312798

VERSION MN312798

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

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biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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361 ctacgca
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LOCUS MN312799 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8996 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.
ACCESSION MN312799
VERSION MN312799
KEYWORDS .
SOURCE Bat betacoronavirus
ORGANISM Bat betacoronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.
REFERENCE 1 (bases 1 to 367)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 367)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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LOCUS MN312800 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 8998 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312800

VERSION MN312800

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

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Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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361 ctacgca

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LOCUS MN312801 367 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 8999 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312801

VERSION MN312801

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
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TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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LOCUS MN312802 367 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 9000 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312802

VERSION MN312802

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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301 taaactgat gcaatgtct atcgtagtgt ccatgttgat tataagttcg tagatgagta
361 ctacgca

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LOCUS MN312803 364 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 9006 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312803

VERSION MN312803

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..364
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LOCUS MN312804 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9007 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312804

VERSION MN312804

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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LOCUS MN312805 323 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9012 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312805

VERSION MN312805

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 323)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 323)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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LOCUS MN312806 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9015 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312806

VERSION MN312806

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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LOCUS MN312807 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9016 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312807

VERSION MN312807

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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361 ctacgca

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LOCUS MN312808 366 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9018 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312808

VERSION MN312808

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 366)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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361 ctacgc

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LOCUS MN312809 367 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9032 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312809

VERSION MN312809

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/mol_type="genomic RNA"

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/host="Hipposideros pratti"

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ORIGIN

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LOCUS MN312810 364 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9037 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312810

VERSION MN312810

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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/mol_type="genomic RNA"

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/host="Hipposideros pratti"

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LOCUS MN312811 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 9041 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312811

VERSION MN312811

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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LOCUS MN312812 367 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate 9042 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312812

VERSION MN312812

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN

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241 tccttgta gcagctaatg gaaacaagat agtcgatgtt tacattcgag acttacagcg
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361 ctacgca

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LOCUS MN312813 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate 9043 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312813

VERSION MN312813

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus
Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
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361 ctacgcattt ttgcgtaa accttttc
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LOCUS MN312814 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 9201 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312814

VERSION MN312814

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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ORIGIN

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241 tgcactcct tcaactgatg gtaacaagat tgccgacaag tacgtccgea atctcaaca
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361 ttacgcata ttcgcaaac acttctc

//

LOCUS MN312815 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 9214 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.

ACCESSION MN312815

VERSION MN312815

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387
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ORIGIN

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LOCUS MN312816 387 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 9215 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312816

VERSION MN312816

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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ORIGIN
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LOCUS MN312817 367 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat betacoronavirus isolate 9287 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.
 ACCESSION MN312817
 VERSION MN312817
 KEYWORDS .
 SOURCE Bat betacoronavirus
 ORGANISM Bat betacoronavirus
 Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 367)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 367)
 AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
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361 ctacgca

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LOCUS MN312818 364 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate 9400 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312818

VERSION MN312818

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 364)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

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CDS <1..>364
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ORIGIN

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121 gatggtcatg tgtggcggt cactatatgt taaaccagggt ggaacatcat ccggtgatgc
181 tacaactgct tatgctaata gtgtctttaa catttgtaa gctgttacag ccaatgtaaa
241 tgcactcctt tcaactgatg gtaacaagat agctgacaag tacgtccgca atctacaaca
301 caggctttat gagtgtctct atagaaatag ggatgttgat catgaattcg tggatgagtt
361 tacg

//

LOCUS MN312819 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 9403 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312819

VERSION MN312819

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="9403"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88439"

/translation="MPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEVMC

GGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRL

YECLYRNRDVEDHEFVDE"

ORIGIN

1 catgcctaac atgcttagga taatggcctc tctgttctt gctcgcaaac atagcacttg
61 ctgtaacttg tcacaccgtt tctacagggt agctaatgag tgtgcgcaag tattaagtga
121 gatggtcatg tgtggcggt cactatatgt taaaccagggt ggaacatcat ccggtgatgc
181 tacaactgct tatgctaata gtgtctttaa catttgtaa gctgttacag ccaatgtaaa
241 tgcactcctt tcaactgatg gtaacaagat agctgacaag tacgtccgca atctacaaca

301 caggctttat gaggctctct atagaaatag ggatggtgat catgaattcg tggatgagtt

//

LOCUS MN312820 360 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 9406 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312820

VERSION MN312820

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 360)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..360

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="9406"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>360

/gene="RdRp"

CDS <1..>360

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88440"

/translation="MPNMLRIMASLV LARKHSTCCNLSHRFYRLANECAQVLSEMVMC

GGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQHRL

YECLYRNRDVDHEFVDE"

ORIGIN

1 catgcctaac atgcttagga taatggcctc tctgttctt gctcgcaaac atagcacttg

61 ctgtaacttg tcacaccgtt tctacagggt agctaagag tgtgcgcaag tattaagtga

121 gatggtcatg tgtggcggct cactatatgt taaaccaggt ggaacatcat cgggtgatgc

181 tacaactgct tatgctaata gtgtctttaa catttgtaa gctgttacag ccaatgtaa

241 tgcactcctt tcaactgatg gtaacaagat agctgacaag tacgtccgca atctacaaca

301 caggctttat gaggctctct atagaaatag ggatggtgat catgaattcg tggatgagtt

//

LOCUS MN312821 358 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate 9408 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312821

VERSION MN312821

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="9408"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88441"

/translation="MPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSEMVMC

GGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRL

YECLYRNRDVDHEFVDE"

ORIGIN

1 catgcctaac atgcttagga taatggcctc tctgttctt gctcgcaaac atagcacttg
61 ctgtaacttg tcacaccgtt tctacagggt agctaatgag tgtgcgcaag tattaagtga
121 gatggtcatg tgtggcggt cactatatgt taaaccaggt ggaacatcat cgggtgatgc
181 tacaactgct tatgctaata gtgtcttaa cattgtcaa gctgttacag ccaatgtaaa
241 tgcactcctt tcaactgatg gtaacaagat agctgacaag tacgtccgca atctacaaca
301 caggctttat gagtgtctct atagaaatag ggatgttgat catgaattcg tggatgag

//

LOCUS MN312822 352 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate GZ131656 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312822

VERSION MN312822

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..352
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="GZ131656"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>352
/gene="RdRp"
CDS <1..>352
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88442"
/translation="KHSTCCTNSDRFYRLANCAQVLSEYVLCGGGYVVKPGGTSSGD
ATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQFDLYINVYRKVVPDPKFV
DKYYAFLNKHFSMM"

ORIGIN

1 gtaagcatag tacttgtgtg actaattctg atagttcta ccgctagct aatgagtgtg
61 ctcaagtgtt aagtgagtat gtcctatgcg gaggggggta ttatgttaa ccaggtgta
121 cgagtagtgg tgatgcaact actgctatg ccaatagtgt ttttaacata ttacaagcca
181 ccaccgctaa tgttagtgca ctaatgagtg ctaatggtaa tacgatcata gatcgtgaaa
241 taaaggatat gcaattgat ttgtatatca atgtatatag aaaagtagtg cctgaccta
301 aatttgtga caagtactac gcatttetta ataacactt ttctatgatg at

//

LOCUS MN312823 352 bp RNA linear VRL 07-NOV-2019

DEFINITION Tylonycteris bat coronavirus HKU4 isolate GZ131657 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312823

VERSION MN312823

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 352)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..352
/organism="Tylonycteris bat coronavirus HKU4"
/mol_type="genomic RNA"
/isolate="GZ131657"
/host="Tylonycteris pachypus"
/db_xref="taxon:694007"
/country="China"
gene <1..>352
/gene="RdRp"
CDS <1..>352
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88443"
/translation="RKHSTCCTNSDRFYRLANECAQVLSEYVLCGGGYVVKPGGTSSG
DATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQFDLYINVYRKVVPDPKF
VDKYYAFLNKHFSMM"

ORIGIN

1 cgtaagcata gtacttggtg tactaattct gataggttct accgcctagc taatgagtgt
61 gctcaagtgt taagtgagta tgcctatgc ggaggggggtt attatgtaa accaggtggt
121 acgagtagtg gtgatgcaac tactgcttat gccaatagtg ttttaacat attacaagcc
181 accaccgcta atgtagtgc actaatgagt gctaatggta atacgatcat agatcgtgaa
241 ataaaggata tgcaattga tttgtatc aatgtatata gaaaagtagt gcctgatcct
301 aaatttggtg acaagtacta cgcatttctt aataaacact tttctatgat ga

//

LOCUS MN312824 327 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate GZ131658 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312824

VERSION MN312824

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 327)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 327)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..327
 /organism="Tylonycteris bat coronavirus HKU4"
 /mol_type="genomic RNA"
 /isolate="GZ131658"
 /host="Tylonycteris pachypus"
 /db_xref="taxon:694007"
 /country="China"
gene <1..>327
 /gene="RdRp"
CDS <1..>327
 /gene="RdRp"
 /codon_start=3
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88444"
 /translation="PNMCRILASLILARKHSTCCTNSDRFYRLANECAQVLSEYVLCG
 GGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQFDLY
 INVYRK"

ORIGIN

1 tgcctaatat gtgtcgcat ttagcgtcat tgatttggc acgtaagcat agtacttgtt
61 gtactaatc tgataggtc taccgcctag ctaatgagtg tgctcaagtg ttaagtgagt
121 atgcctatg cggagggggt tattatgta aaccaggtgg tacgagtagt ggtgatgcaa
181 ctactgctta tgccaatagt gttttaaca tattacaagc caccaccgct aatgttagt
241 cactaatgag tgctaaggt aatacgatca tagatcgtga aataaaggat atgcaatttg
301 attgtatat caatgtatat agaaaag

//

LOCUS MN312825 348 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate GZ131660 RNA-dependent
 RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312825

VERSION MN312825

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

 Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..348
 /organism="Tylonycteris bat coronavirus HKU4"
 /mol_type="genomic RNA"
 /isolate="GZ131660"
 /host="Tylonycteris pachypus"

/db_xref="taxon:694007"
/country="China"
gene <1..>348
/gene="RdRp"
CDS <1..>348
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88445"
/translation="KHSTCCTNSDRFYRLANECAQVLSEYVLCGGGYVVKPGGTSSGD
ATTAYANSVFNILQATTANVSALMSANGNTIIDREIKDMQFDLYINVYRKVVPDPKFV
DKYYAFLNKHFSMM"

ORIGIN

1 aagcatagta cttgtgtac taattctgat aggttctacc gcctagctaa tgagtgtgct
61 caagtgttaa gtagtatgt cctatgcgga ggggggtatt atgttaaacc aggtggtacg
121 agtagtggtg atgcaactac tgcttatgcc aatagtgttt ttaacatatt acaagccacc
181 accgctaata gtagtgact aatgagtgtc aatggaata cgatcataga tcgtgaaata
241 aaggatatgc aatttgattt gtatatcaat gtatatagaa aagtagtgc tgatcctaaa
301 ttgttgaca agtactacgc atttctaat aaacactttt ctatgatg

//

LOCUS MN312826 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate HD131601 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312826

VERSION MN312826

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="HD131601"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88446"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGPSSGDATTAYANSVFNICQAVTANVNALLSTDGNNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct tagaattatg gcttctcttg ttcttgctcg caaacatagc
61 acttggtgta actgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcattgtcgg aggctcacta tatgtaaacc caggtggacc atcatcaggt
181 gatgccacaa ctgcctacgc taatagtgtg ttaacattt gtcaagctgt gacagctaat
241 gtaaatgcac ttctctcaac tgatggtaac aagattgctg acaagtacgt tcgcaacctc
301 caacacaggc tatatgagtg ttctctataga aatagagacg ttgatcatga atttgggat
361 gaattttacg cgtatttgcg taagcacttc tctatgatga tt

//

LOCUS MN312827 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate HK140592 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312827

VERSION MN312827

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="HK140592"
/host="Cynopterus sphinx"
/db_xref="taxon:1805463"
/country="China"

gene <1..>408
/gene="RdRp"

CDS <1..>408
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88447"

/translation="CDRAMPNLLRIFASLILARKHSTCCNASERFYRLANECAQVLSE
MVLCCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNNKIYTTYVQEL

QRRLYMGIIYRTNTVDNDLVLDYYNYLRKHFSMMI"

ORIGIN

1 tgtgatagag ctatgccccaa cttgttgcgt atatttgcca gtctaatttt ggcgcgaaaa
61 cactctactt gctgcaatgc ctctgaaaga ttttataggt tagcaaatga gtgtgccccaa
121 gtgcttagtg agatggtttt atgtggaggt ggattctatg taaaaccagg aggtacaagt
181 agtggcgatt ccaccactgc atatgcaa atgtgtgttta atatttgcca agcggtgagt
241 gctaatttaa acaccttttt gtctatagat ggtaataaaa tatacacaac ttacgtacaa
301 gagttgcaac gtaggttgta tatgggtatt tatcgcacta acacagtgga taatgattta
361 gtctctgatt attataacta ttgcgtaag cattttagta tgatgatt

//

LOCUS MN312828 405 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate HK140594 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312828

VERSION MN312828

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 405)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..405

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="HK140594"

/host="Cynopterus sphinx"

/db_xref="taxon:1805463"

/country="China"

gene <1..>405

/gene="RdRp"

CDS <1..>405

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88448"

/translation="DRAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSEM
VLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQ
RRLYMGIIYRTNTVDNDLVLDYYNYLRKHFSMMI"

ORIGIN

1 gatagagcta tgccaactt gttgcgtata ttgcccagtc taattttggc gcgaaaacac
61 tctacttgct gcaatgcctc tgaagattt tataggttag caaatgagtg tgccaagtg
121 cttagtgaga tggttttatg tggaggtgga ttctatgtaa aaccaggagg tacaagtagt

181 ggcgattcca ccaactgata tgcaaatagt gtgtttaata tttgccaagc ggtgagtgt
241 aatttaaca cctttttgtc tatagatggt aataaaatat acacaactta cgtacaagag
301 ttgcaacgta ggtgttatat gggtatttat gcactaaca cagtggataa tgatttagtt
361 ctggattatt ataactatt gcgtaagcat ttagtatga tgatt

//

LOCUS MN312829 423 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate HZ13479 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312829

VERSION MN312829

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 423)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 423)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..423

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="HZ13479"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>423

/gene="RdRp"

CDS <1..>423

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88449"

/translation="DYPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQ

VLSEMVVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKY

VRNLQHRLYECLYRNRDVEDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 gggattatcc caaatgtgac agagccatgc ctaacatgct taggataatg gcctctcttg
61 ttcttgcctg caaacatagc acttctgtga acttatcaca cgtttctac aggttagcta
121 atgagtgtgc acaagtgtta agtgagatgg tcatgtgtgg cggctcacta tatgttaaac
181 caggtggaac atcatcaggt gatgctacaa ctgcttatgc taatagtgtc ttaacattt
241 gtcaagctgt tacagccaat gtaaagcgc ttcttcaac tgatggtaat aaaatagctg
301 acaagtacgt ccgcaattta caacacagge tttatgagtg tctctataga aatagggatg
361 ttgatcatga atcgtggat gattttacg cttacctgcg taaacatttc tccatgatga
421 tc

//
LOCUS MN312830 442 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate HZ13484 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312830

VERSION MN312830

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 442)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 442)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..442

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="HZ13484"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>442

/gene="RdRp"

CDS <1..>442

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88450"

/translation="LMGWDYPKCDRAMPGMLRIMASLVIAGKHSTCCNLSRRFYRLGN

ECAQVLSEMVMCGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKI

ADKYVRNLQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMILSD"

ORIGIN

1 cttatgggtt gggattatcc caaatgtgac agagccatgc ctggcatgct taggataatg
61 gcctctcttg ttattgctgg caaacatagc acttgctgta acttatcacg cegtttctac
121 aggttaggta atgagtgtgc acaagtgtta agtgagatgg tcattgtgtg cggctcacta
181 tatgttaaac caggtggaac atcatcaggt gatgctacaa ctgcttatgc taatagtgtc
241 ttaacattt gtcaagctgt tacagccaat gtaaatgcac ttctttcaac tgatggtaat
301 aaaatagctg acaagtacgt cgcgaattta caacacaggc tttatgagtg tctctataga
361 aatagggatg ttgatcatga attcgtggat gagttttacg cttacctgcg taaacatttc
421 tccatgatga ttctttctga tg

//
LOCUS MN312831 433 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate HZ13488 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312831

VERSION MN312831

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 433)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 433)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of

Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..433

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="HZ13488"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>433

/gene="RdRp"

CDS <1..>433

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88451"

/translation="LMGWDYPKCDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLAN

ECAQVLSEMVMCGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKI

ADKYVRNLQHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 cttatgggtt gggattatcc caaatgtgac agagccatgc ctaacatgct taggataatg
61 gcctctcttg ttcttgctcg caaacatagc acttgctgta acttatcaca ccgtttctac
121 aggttagcta atgagtgtgc acaagtgtta agtgagatgg tcattgtgtg cggctcacta
181 tatgttaaac caggtggaac atcatcaggt gatgctacaa ctgcttatgc taatagtgc
241 ttaacattt gtcaagctgt tacagccaat gtaaatgcac ttcttcaac tgatggtaat
301 aaaatagctg acaagtacgt ccgcaattta caacacaggc tttatgagtg tctctataga
361 aatagggatg ttgatcatga attcgtggat gagttttacg cttacctgcg taaacatttc
421 tccatgatga ttc

//

LOCUS MN312832 359 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate LQ131405 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312832

VERSION MN312832

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 359)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..359

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="LQ131405"

/host="Rhinolophus ferrumequinum"

/db_xref="taxon:1508227"

/country="China"

gene <1..>359

/gene="RdRp"

CDS <1..>359

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88452"

/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSEMV

MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH

RLYECLYRNRDVDHEFV"

ORIGIN

1 agagccatgc ctaacatgct tagaattatg gcttctcttg ttcttgctcg taaacatagc
61 acttgctgta acttgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcattgtgtg aggctcacta tatgtaaac caggtggaac atcatcaggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacattt gtcaagcggg gacagctaat
241 gtaaagtcac ttcttcaac tgatggtaac aagattgctg acaagtacgt tcgcaacctc
301 caacacaggc tatatgagtg tccttataga aatagagacg ttgatcatga atttggga

//

LOCUS MN312833 355 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate LQ131406 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312833

VERSION MN312833

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="LQ131406"
/host="Rhinolophus ferrumequinum"
/db_xref="taxon:1508227"
/country="China"
gene <1..>355
/gene="RdRp"
CDS <1..>355
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88453"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH
RLYECLYRNRDVEDHEF"

ORIGIN

1 agagccatgc ctaacatgct tagaattatg gcttctcttg ttcttgctcg taacatagc
61 acttgctgta actgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcattgtgag aggtcacta tatgtaaacc caggtggaac atcatcaggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacattt gtcaagcggg gacagctaat
241 gtaaatgcac tctttcaac tgatgtaac aagattgctg acaagtacgt tcgcaacctc
301 caacacaggc tatatgagtg ttcttataga aatagagacg ttgatcatga atttg

//

LOCUS MN312834 355 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate LQ131407 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312834

VERSION MN312834

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="LQ131407"
/host="Rhinolophus ferrumequinum"
/db_xref="taxon:1508227"
/country="China"
gene <1..>355
/gene="RdRp"
CDS <1..>355
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88454"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH
RLYECLYRNRDVEDHEF"

ORIGIN

1 agagccatgc ctaacatgct tagaattatg gttctcttg ttcttgctcg taaacatagc
61 acttgctgta actgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcattgtgagg aggctcacta tatgtaaac caggtggaac atcatcaggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacattt gtcaagcggg gacagctaat
241 gtaaagtcac ttctttcaac tgatggtaac aagattgctg acaagtagct tgcgaacctc
301 caacacaggc tatatgagtg ttcttataga aatagagacg ttgatcatga atttg

//

LOCUS MN312835 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate LQ131412 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312835

VERSION MN312835

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"
/isolate="LQ131412"
/host="Rhinolophus ferrumequinum"
/db_xref="taxon:1508227"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88455"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct tagaattatg gcttctcttg ttcttgctcg taacatagc
61 acttgctgta acttgctgca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcatgtgtgg aggetcacta tatgtaaac caggtggaac atcatcaggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacattt gtcaagcggg gacagctaat
241 gtaaatgcac ttcttcaac tgatggaac aagattgctg acaagtacgt tcgcaacctc
301 caacacaggc tatatgagtg ttctataga aatagagacg ttgatcatga atttgggat
361 gaatttacg catatttgcg taagcatttc tctatgatga tt

//

LOCUS MN312836 343 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate ML140134 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312836

VERSION MN312836

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 343)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 343)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..343
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="ML140134"
/host="Cynopterus sphinx"
/db_xref="taxon:1805463"
/country="China"

gene <1..>343
/gene="RdRp"
CDS <1..>343
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88456"
/translation="DRAMPNLLRIFASLILARKHSTCCNASERFYRLANECAQVLSEM
VLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQ
RRLYMGIYRTNT"

ORIGIN

1 gatagagcta tgccaactt gttgctata tttgccagtc taattttggc gcgaaaacac
61 tctacttgct gcaatgcctc tgaagattt tataggtag caaatgagtg tgccaagtg
121 cttagtgaga tggttttatg tggaggtgga ttctatgtaa aaccaggagg tacaagtagt
181 ggcgattcca ccaactgata tgcaaatagt gtgttaata tttgccaagc ggtgagtgt
241 aatttaaaca cctttttgct tatagatggt aataaaatat acacaactta cgtacaagag
301 ttgcaacgta ggttgatat gggtattat cgcactaaca cag

//

LOCUS MN312837 347 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate ML140136 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312837

VERSION MN312837

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 347)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 347)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..347
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="ML140136"
/host="Cynopterus sphinx"
/db_xref="taxon:1805463"
/country="China"

gene <1..>347
/gene="RdRp"

CDS <1..>347
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"

/protein_id="QGA88457"
/translation="DRAMPNLLRIFASLILARKHSTCCNASERFYRLANECAQVLSEM
VLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQ
RRLYMGIIYRTNTV"

ORIGIN

1 tgatagagct atgccaact tgttgcgtat attgccagt ctaatttgg cgcgaaaaca
61 ctctacttgc tgcaatgct ctgaaagatt ttataggta gcaatgagt gtgccaagt
121 gcttagtgag atggtttat gtggaggtgg attctatgta aaaccaggag gtacaagtag
181 tggcgattcc accactgcat atgcaaatag tgtgtttaat attgccaaag cggtgagtgc
241 taatttaaac accttttgt ctatagatgg taataaaata tacacaactt acgtacaaga
301 gttgcaactg aggtgtata tgggtattta tgcactaac acagtgg

//

LOCUS MN312838 387 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate ML140137-1 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312838

VERSION MN312838

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="ML140137-1"

/host="Cynopterus sphinx"

/db_xref="taxon:1805463"

/country="China"

gene <1..>387

/gene="RdRp"

CDS <1..>387

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88458"

/translation="MPNLLRIFASLILARKHSTCCNASERFYRLANECAQVLSEMVLC
GGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQRRL
YMGIIYRTNTVDNDLVLDYYNYLRKHF"

ORIGIN

1 tatgccaac ttgttgcgta tattgccag tctaatttg cgcgaaaac actctacttg

61 ctgcaatgcc tctgaaagat tttatagggt agcaaatgag tgtgccaag tgcttagtga
121 gatggtttta tgtggagggtg gattctatgt aaaaccagga ggtacaagta gtggcgattc
181 caccactgca tatgcaaata gtgtgtttaa tatttgccaa gcggtgagtg ctaatttaa
241 caccttttg tctatagatg gtaataaaat atacacaact tacgtacaag agttgcaacg
301 taggtgtat atgggtattt atcgactaa cacagtggat aatgatttag ttctggatta
361 ttataactat ttgcgtaagc attttag

//

LOCUS MN312839 387 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate ML140137-2 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312839

VERSION MN312839

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 387)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..387

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="ML140137-2"

/host="Cynopterus sphinx"

/db_xref="taxon:1805463"

/country="China"

gene <1..>387

/gene="RdRp"

CDS <1..>387

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88459"

/translation="IPTLLRIFSTVILARKHSTCCNASERFYRLANESAQVLRMVLG

GGGFYVKPRGTSRGDSPPAHANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQRRL

YMGYRTNTVDNDLVLDYYNYLRKHF"

ORIGIN

1 tataaccacc ttgtgcgta tattttccac tgtaatttg ggcgcaaac actctacttg
61 ctgcaatgcc tctgaaagat tttatagggt agcaaatgag agtgccaag tgcttagaga
121 gatggtttta tgtggagggg gattttatgt aaaaccagga ggtacaagta gaggcgattc
181 cccccctgca catgcaaata gtgtgtttaa tatttgccaa gcggtgagtg ctaatttaa
241 caccttttg tctatagatg gtaataaaat atacacaact tacgtacaag agttgcaacg
301 taggtgtat atgggtattt atcgactaa cacagtggat aatgatttag ttctggatta

361 ttataactat ttgcgtaage attttag

//

LOCUS MN312840 358 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate ML140139 RNA-dependent RNA polymerase

(RdRp) gene, partial cds.

ACCESSION MN312840

VERSION MN312840

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 358)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..358

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="ML140139"

/host="Cynopterus sphinx"

/db_xref="taxon:1805463"

/country="China"

gene <1..>358

/gene="RdRp"

CDS <1..>358

/gene="RdRp"

/codon_start=3

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88460"

/translation="DRAMPNLLRIFASLILARKHSTCCNASERFYRLANECAQVLSEM
VLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQ
RRLYMGIYRTNTVDND"

ORIGIN

1 gtgatagagc tatgcccaac ttgttcgta ttttgccag tctaatttg gcgcgaaaac
61 actctacttg ctgcaatgcc tctgaaagat ttatagggt agcaaatgag tgtgcccaag
121 tgcttagtga gatggtttta tgtggaggtg gattctatgt aaaaccagga ggtacaagta
181 gtggcgatc caccactgca tatgcaata gtgtgttaa ttttgccaa gcggtgagtg
241 ctaatttaa cactttttg tctatagatg gtaataaaat atacacaact tacgtacaag
301 agttgcaacg taggtgtat atgggtatt atcgactaa cacagtggat aatgattt

//

LOCUS MN312841 342 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate ML140140 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312841

VERSION MN312841

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 342)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 342)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..342

/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="ML140140"
/host="Cynopterus sphinx"
/db_xref="taxon:1805463"
/country="China"

gene <1..>342

/gene="RdRp"

CDS <1..>342

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88461"

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VLCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQ
RRLYMGIIYRTNT"

ORIGIN

1 ttagatagct atgccaact tgttgcgtat attgccagt ctaatttgg cgcgaaaaca
61 ctctacttgc tgcaatgct ctgaaagatt ttataggta gcaaatgagt gtgcccaagt
121 gcttagtgag atggtttat gtggaggtgg attctatgta aaaccaggag gtacaagtag
181 tggcgattcc accactgcat atgcaaagtag tgtgtttaat attgcccaag cggtagtgc
241 taatttaaac accttttct ctatagatgg taataaata tacacaactt acgtacaaga
301 gttgcaactg aggtgtata tgggtattta tcgactaac ac

//

LOCUS MN312842 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate NL13884-1 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312842

VERSION MN312842

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
 /organism="Bat MERS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="NL13884-1"
 /host="Hypsugo pulveratus"
 /db_xref="taxon:2664423"
 /country="China"
 gene <1..>402
 /gene="RdRp"
 CDS <1..>402
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88462"
 /translation="RAMPNMCRIFASLILARKHGTCTTRDRFYRLANCAQVLSEYV
 LCGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQF
 DLYVNVYRNTTPDPKFVVDKYYAFLNKHFSMMI"

ORIGIN

1 agagctatgc ctaacatgtg taggattttt gcactctctaa ttcttgcaag caagcatgga
 61 acttgctgca ctagtagaga tagattttac cgcttagcta atgagtgtgc tcaggacta
 121 agcgaatatg ttctctgtgg cgggtggtat tatgtcaaac ctggcggaac cagcagcggc
 181 gacgccacca cagcttatgc caacagtgtt ttaacattt tgcagggcag aactgcaaat
 241 gttagtgcac ttatgggcgc taatggcaac aaaattgttg ataaggagat tagggacatg
 301 caattcgatt tgtatgcaaa tgtttacagg aataccactc ctgaccctaa attttagat
 361 aaatattatg cttttctcaa taagcacttc tctatgatga tt

//

LOCUS MN312843 399 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat SARS-like coronavirus isolate NL140346 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312843

VERSION MN312843

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 399)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..399
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="NL140346"
/host="Rhinolophus pusillus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>399
/gene="RdRp"
CDS <1..>399
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88463"
/translation="AMPNMLRIMASLV LARKHSTCCNLSHRFYRLANCAQVLSEMVM
CGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQHR
LYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 gagccatgcc taacatgctt aggataatgg cctctcttgt tcttgcgcgc aacatagca
61 cttgctgcaa cttatcacac cgtttctata ggtagctaa cgagtgtgcg caagtattaa
121 gtgagatggt catgtgtggc ggctcactat atgttaaacc aggtgaaca tcacaggtg
181 atgtacaac tgcttatgct aatagtgtt ttaatattg tcaagctgtt acagctaag
241 taaatgcact tctctcaact gatggtaata agatagctga caagtatgct cgcaatctac
301 aacacagact ttacgagtgt ctctacagaa atagggatgt agatcatgaa ttcgtggatg
361 aattttacgc atattgccc aaacatttt ctatgatga

//

LOCUS MN312844 407 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate NL140352 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312844

VERSION MN312844

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..407
 /organism="Bat SARS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="NL140352"
 /host="Rhinolophus pusillus"
 /db_xref="taxon:1508227"
 /country="China"
gene <1..>407
 /gene="RdRp"
CDS <1..>407
 /gene="RdRp"
 /codon_start=3
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88464"
 /translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH
RLYECLYRNRDVEDHEFVDEFYAYLRKHFSSMMIH"

ORIGIN

1 acagagccat gcctaacatg cttaggataa tggcctctct tgttctgct cgcaaacata
61 gcacttgctg caacttatca caccgtttct ataggttage taacgagtgt gcgcaagtat
121 taagtgagat ggtcatgtgt ggcggctcac tatatgtaa accaggtgga acatcatcag
181 gtgatgctac aactgcttat gctaataatg ttttaatat ttgtcaagct gttacagcta
241 atgtaaatgc acttctctca actgatggtg ataagatagc tgacaagtat gtccgcaatc
301 tacaacacag actttacgag tgtctctaca gaaataggga tgtagatcat gaattcgtgg
361 atgaatttta cgcatatttg cgcaaacatt tttctatgat gattcat

//

LOCUS MN312845 404 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate NL140391 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312845

VERSION MN312845

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 404)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..404
 /organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"
/isolate="NL140391"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"
gene <1..>404
/gene="RdRp"
CDS <1..>404
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88465"
/translation="RAMPNMLRIMASLVLARKHSTCCNLAHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDVDHEFVGEFYAYLRKHFSMMI"

ORIGIN

1 acagagccat gcctaacatg cttaggataa tggcctctct tgttcttgct cgcaaacaca
61 gcacttgctg taacttagca caccgtttct acaggtagc taatgagtgt gcacaagtgt
121 taagtgagat ggtcatgtgt ggcggetcac tatatgtaa accagggtgga acatcatcag
181 gtgatgctac aactgcttat gctaatagtg tctttaacat ttgccaagct gttacagcca
241 atgtaaatgc acttcttca actgatggta ataaaatagc tgacaagtat gtccgcaatt
301 tacaacacag gctttatgag tgtctctata gaaataggga tgttgatcat gaattcgtgg
361 gtgagtttta cgcttacctg cgtaaacatt tctctatgat gatt

//

LOCUS MN312846 407 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate NL140400 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312846

VERSION MN312846

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 407)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..407
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="NL140400"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>407
/gene="RdRp"
CDS <1..>407
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88466"
/translation="CDRAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANCAQVLSE
MVMCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNL
QHRLYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 tgtgacagag ccatgcctaa tatgcttagg atcatggcct ctctgttct tgctgcaaa
61 catagcacgt gctgtaactt gtcgaccgt ttctacagat tagctaata gtgtgcacaa
121 gtattaagt agatggcat gtgtggcggc tcactatag tgaaccagg tggcacatcg
181 tctggtagt ctacaactgc ttatgcta atgtgtgta acatctgtca agctgtaaca
241 gctaacgta acgcactct ttcaactgat ggtaacaaga ttgccgacaa gtacgtacgt
301 aatctcaac acagacttta tgagtgtct tatagaaata gggatgtaga tcatgaatt
361 gtggatgagt ttacgcata cttgcgcaaa cacttctta tgatgat

//

LOCUS MN312847 397 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate NL140450 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312847

VERSION MN312847

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 397)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 397)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..397
/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="NL140450"
/host="Ia io"
/db_xref="taxon:2664423"
/country="China"

gene <1..>397
/gene="RdRp"

CDS <1..>397
/gene="RdRp"
/codon_start=2

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88467"
/translation="AMPNMCRIFASLILARKHGTCCSTSDRFYRLANECAQVLSEYVL
CGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMGTNGNKIVDKVDRDMQFD
LYVNVYRRTSPDPKFVVDKYYAFLNKHFSMM"

ORIGIN

1 agctatgct aacatgtgta ggattttgc atcactgata ttagctcgca agcatggtac
61 ttgctgctct accagtgate gttttaccg cttagctaag gagtgtgctc aggtgttaag
121 tgaatatgtg ttgtgtggtg gtggctacta tgtaagcct ggtggcacia gcagtgtgta
181 tgccactacc gcatatgcca atagtgtctt taacattctg caagcgacta ctgccaatgt
241 gagtgcactt atgggaacta atggcaacia gattgttgat aaagaagta gagacatgca
301 gtttgattg tatgtcaatg ttacaggcg tacatcacct gatcctaagt ttgtgataa
361 atattatgct tttcttaata agcacttttc tatgatg

//

LOCUS MN312848 412 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate NL140452 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312848

VERSION MN312848

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 412)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 412)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..412

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="NL140452"

/host="Hypsugo pulveratus"

/db_xref="taxon:1805463"

/country="China"

gene <1..>412

/gene="RdRp"

CDS <1..>412

/gene="RdRp"

/codon_start=2

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88468"

/translation="KCDRAMPNMCRIFASLILARKHGTCCCTTRDRFYRLANECAQVLS

EYVLCGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKVDRDMQFD

LYVNVYRRTSPDPKFVVDKYYAFLNKHFSMMI"

ORIGIN

1 taaatgtgat cgtgctatgc ctaacatgtg taggattttt gcactctctaa ttcttgcacg
61 caagcatgga actgtctgca ctactagaga tagattttac cgcttagcta atgagtgtgc
121 tcaggtacta agcgaatag ttctctgtgg cgggtggtat tatgtcaaac ctggcgggaa
181 cagcagcggc gacgccacca cagcttatgc caacagtgtt ttaacattt tgcaggcgac
241 aactgcaaat gttagtgcac ttatgggcgc taatggcaac aaaattgttg ataaggagat
301 tagggacatg caattcgatt tgtatgtcaa tgtttacagg aataccactc ctgaccctaa
361 attgtagat aatattatg cttttctcaa taagcacttc tctatgatga tt

//

LOCUS MN312849 408 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate NL140454 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312849

VERSION MN312849

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronidovirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 408)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..408

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="NL140454"
/host="Hypsugo pulveratus"
/db_xref="taxon:2664423"
/country="China"

gene <1..>408

/gene="RdRp"

CDS <1..>408

/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88469"
/translation="CDRAMPNMCRIFASLILARKHGTCCTTRDRFYRLANCAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKIIRDM
QFDLYVNVYRNTTPDPKFVVKYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctaa catgtgtagg attttgcac ctctaattct tgcacgcaag
61 catggaactt gctgcactac tagagataga tttaccgct tagctaatga gtgtgctcag
121 gtactaagcg aatatttct ctgtggcggg ggttattatg taaacctgg cggaaccagc
181 agcggcgacg ccaccacagc ttatgccaac agtgtttta acattttgca ggcgacaact

241 gcaaatgta gtgcacttat gggcgctaataa ggcaacaaaa ttgttgataa ggagattagg
301 gacatgcaat tcgatttgta tgcaatggt tacaggaata ccaactctga cccaaattt
361 gtagataaat attatgcgtt tctcaataag cacttcteta tgatgatt

//

LOCUS MN312850 418 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat MERS-like coronavirus isolate NL140455 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312850

VERSION MN312850

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 418)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..418

/organism="Bat MERS-like coronavirus"

/mol_type="genomic RNA"

/isolate="NL140455"

/host="Hypsugo sp."

/db_xref="taxon:2664423"

/country="China"

gene <1..>418

/gene="RdRp"

CDS <1..>418

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88470"

/translation="CDAMPNMCRIFASLILARKHGTCCTTRDRFYRLANCAQVLSE

YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKIIRDM

QFDLYVNVYRNTTPDPKFVVDKYYAFLNKHFSMMIQLM"

ORIGIN

1 tgtgatagag ctatgcctaa catgtgtagg attttgcac ctctaattct tgcacgcaag
61 catggaactt gtgcactac tagagataga tttaccgct tagctaatga gtgcgctcag
121 gtaactaagc aatattgctt ctgtggtggt ggttattacg tcaaacctgg cggaaccagg
181 agtggcgatg ccaccacagc ttatgccaac agtgtcttta acatttgcg ggcgacaact
241 gcaaatgta gtgcacttat gggcgctaataa ggcaacaaaa ttgttgataa agagattagg
301 gacatgcaat tcgatttgta tgcaatggt tacaggaata ctactctga cccaaattt
361 gtagataaat attatgcgtt tctcaacaag cactttteta tgatgattca actgatga

//

LOCUS MN312851 440 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate NL140458 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312851

VERSION MN312851

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae; Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 440)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 440)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J., Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..440

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="NL140458"

/host="Hypsugo sp."

/db_xref="taxon:1805463"

/country="China"

gene <1..>440

/gene="RdRp"

CDS <1..>440

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88471"

/translation="GWDYPKCDRAMPNMCRIFASLILARKHGTCCCTRDRFYRLANEC

AQVLSEYVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVD

KEIRDMQFDLYVNVYRNTTPDPKFVDKYYAFLNKHFSMMIHLMM"

ORIGIN

1 ggttgggatt atccaaatg tgatcgtgct atgcctaaca tgttaggat tttgcatct
61 ctaattctg cacgcaagca tgaacttgc tgcactacta gagatagatt ttaccgctta
121 gctaatgagt gtgctcaggt actaagcgaat tatgttctct gtggcgggtg ttattatgct
181 aaacctggcg gaaccagcag cggcgacgcc accacagctt atgccaacag tgttttaac
241 atttgcagg cgacaactgc aatgttagt gcacttatgg gcgctaattg caacaaaatt
301 gttgataagg agattagga catgcaatc gattgtatg tcaatgtta caggaatacc
361 actcctgacc ctaatttgt agataaatat tatgctttc tcaataagca cttctctatg
421 atgattcatc tgatgatgga

//

LOCUS MN312852 403 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate NL140460 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312852

VERSION MN312852

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..403

/organism="Bat MERS-like coronavirus"
/mol_type="genomic RNA"
/isolate="NL140460"
/host="Hypsugo pulveratus"
/db_xref="taxon:2664423"
/country="China"

gene <1..>403

/gene="RdRp"

CDS <1..>403

/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88472"
/translation="RAMPNMCRIFASLILARKHGTCCTTRDRFYRLANCAQVLSEYV
LCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKEIRDMQF
DLYVNVYRNTTPDPKFVDKYYAFLNKHFSMMI"

ORIGIN

1 tagagctatg cctaactatg gtaggattt tgcattctca attcttgca gcaagcatgg
61 aacttgctgc actactagag atagattta ccgcttagct aatgagtgtg ctcaggctact
121 aagcgaatat gttctctgtg gcggtggfta ttatgtcaaa cctggcggaa ccagcagcgg
181 cgacgccacc acagcttatg ccaacagtgt ttttaacatt ttgcaggcga caactgcaaa
241 tgttagtgca cttatgggcg ctaatggcaa caaattgtt gataaggaga ttagggacat
301 gcaattgat ttgatgtca atgtttacag gaataccact cctgacccta aattgtaga
361 taaatattat gcttttctca ataagcactt ctctatgatg att

//

LOCUS MN312853 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat MERS-like coronavirus isolate NL140462 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312853

VERSION MN312853

KEYWORDS .

SOURCE Bat MERS-like coronavirus

ORGANISM Bat MERS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Direct Submission
 JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
 /organism="Bat MERS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="NL140462"
 /host="Hypsugo pulveratus"
 /db_xref="taxon:2664423"
 /country="China"
 gene <1..>402
 /gene="RdRp"
 CDS <1..>402
 /gene="RdRp"
 /codon_start=1
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88473"
 /translation="RAMPNMCRIFASLILARKHGTCTTRDRFYRLANCAQVLSEYV
 LCGGGYYVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKAIRDMQF
 DLYVNVYRNTTPDPKFVVDKYYAFLNKHFSMMI"

ORIGIN

1 agagctatgc ctaacatgtg taggattttt gcacatctaa ttcttgcaag caagcatgga
 61 acttgctgca ctaactagaga tagattttac cgcttagcta atgagtgtgc tcaggctacta
 121 agcgaatatg ttctctgtgg cgggtggtat tatgtcaaac ctggcggaac cagcagcggc
 181 gacgccacca cagcttatgc caacagtgtt ttaacattt tgcagggcag aactgcaaat
 241 gttagtgcac ttatgggcgc taatggcaac aaaattgttg ataaggagat tagggacatg
 301 caattcgatt tgtatgcaa tgtttacagg aataccactc ctgaccctaa attttagatg
 361 aaatattatg cttttctcaa taagcacttc tctatgatga tt

//

LOCUS MN312854 409 bp RNA linear VRL 07-NOV-2019
 DEFINITION Bat betacoronavirus isolate NL140465 RNA-dependent RNA polymerase
 (RdRp) gene, partial cds.

ACCESSION MN312854

VERSION MN312854

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus
 Viruses; Riboviria; Nidovirales; Coronaviridae;
 Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
 TITLE Origin and cross-species transmission of bat coronaviruses in China
 JOURNAL Unpublished

REFERENCE 2 (bases 1 to 409)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..409
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="NL140465"
/host="Hypsugo pulveratus"
/db_xref="taxon:1805463"
/country="China"
gene <1..>409
/gene="RdRp"
CDS <1..>409
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88474"
/translation="CDRAMPNMCRIFASLILARKHGTCCTTRDRFYRLANCAQVLSE
YVLCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMGANGNKIVDKIIRDM
QFDLYVNVYRNTTPDPKFVVKYYAFLNKHFSMMI"

ORIGIN

1 tgtgatagag ctatgcctaa catgtgtagg attttgcac ctctaattct tgcacgcaag
61 catggaactt gctgcactac tagagataga tttaccgct tagctaata ga gtgtgctcag
121 gtactaagcg aatatgttct ctgtggcggt ggttattatg tcaaacctgg cggaccagc
181 agcggcgacg ccaccacagc ttatgccaac agtgttttta acattttgca ggcgacaact
241 gcaaatgtta gtgcacttat gggcgctaat ggcaacaaaa ttgttgataa ggagattagg
301 gacatgcaat tcgatttga tgcaatgtt tacaggaata ccactcctga ccctaaattt
361 gtagataaat attatgctt tetcaataag cacttctcta tgatgattc

//

LOCUS MN312855 403 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate NL140478 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312855

VERSION MN312855

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 403)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and

biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers
source 1..403
 /organism="Bat SARS-like coronavirus"
 /mol_type="genomic RNA"
 /isolate="NL140478"
 /host="Hipposideros pratti"
 /db_xref="taxon:1508227"
 /country="China"
gene <1..>403
 /gene="RdRp"
CDS <1..>403
 /gene="RdRp"
 /codon_start=2
 /product="RNA-dependent RNA polymerase"
 /protein_id="QGA88475"
 /translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
TCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGKNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFMMI"

ORIGIN

1 tagagccatg cctaaccatgc ttaggataat ggcctctctt gttcttgctc gcaaacatag
61 cacttgctgc aacttatac accgtttcta taggtagct aacgagtgtg cgcaagtatt
121 aagtgagatg gtcacgtgtg gcggtcact atatgttaa ccagtgga catcatcagg
181 tgatgctaca actgctatg ctaatagtgt ttttaattt tgcaagctg ttacagctaa
241 tgaaatgca cttctctcaa ctgatggtaa taagatagct gacaagatg tccgcaatc
301 acaacacaga cttacgagt gtctctacag aaatagggat gtatgatcatg aattcgtgga
361 tgaatttac gcatattgc gcaaacattt ttctatgatg att

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LOCUS MN312856 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate NL140494 RNA-dependent RNA
 polymerase (RdRp) gene, partial cds.

ACCESSION MN312856

VERSION MN312856

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
 Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
 biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
 Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
 /organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"
/isolate="NL140494"
/host="Hipposideros armiger"
/db_xref="taxon:1508227"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=2
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88476"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSADGNKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMM"

ORIGIN

1 cagagccatg ctaacatgc ttaggataat ggctctctt gttcttgctc gcaaacatag
61 cacttgctgc aacttatcac accgtttcta taggtagct aacgagtgtg cgcaagtatt
121 aagtgagatg gtcattgtg gcggtcact atatgttaa ccaggtggaa catcatcagg
181 tgatgctaca actgcttatg ctaatagtgt ttttaattt tgtaagctg ttacagctaa
241 tgtaaacgca ctctctcag ctgatggtaa taagatagct gacaagtatg tccgcaatct
301 acaacacaga cttacagagt gtctctacag aatagggat gtagatcatg aattcgtgga
361 tgaatttac gcatattgc gcaaacattt ttctatgatg at

//

LOCUS MN312857 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate QS131514 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312857

VERSION MN312857

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="QS131514"
/host="Rhinolophus ferrumequinum"
/db_xref="taxon:1508227"
/country="China"

gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88477"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQH
RLYECLYRNRDVDHKFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaacatgct tagaattatg gcttctcttg ttcttgctcg caaacatagc
61 acttgctgta acttgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcattgtgagg aggctcacta tatgtaaac caggtggaac atcatcaggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacattt gtcaagcggg gacagctaat
241 gtaaagtcac ttctttcaac tgatggtaac aagattgctg acaagtacgt tcgcaacctc
301 caacacaggc tatatgagtg ttcttataga aatagagacg ttgatcataa atttggtgat
361 gaattttacg catatttgcg taagcatttc tctatgatga tt

//

LOCUS MN312858 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate SZ140288 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312858

VERSION MN312858

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="SZ140288"
/host="Rhinolophus sinicus"
/db_xref="taxon:1508227"
/country="China"

gene <1..>402
/gene="RdRp"

CDS <1..>402
/gene="RdRp"
/codon_start=1

/product="RNA-dependent RNA polymerase"
/protein_id="QGA88478"
/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV
MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH
RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaatatgct tagaatcatg gcttccttg ttcttgctcg caaacatage
61 acttggtgta actgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcatgtgtgg cggctcatta tacgtgaaac caggtggaac atcatccggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacatct gtcaagcagt aacagctaat
241 gtaaatgcac ttctctcaac tgatggtaat aagattgctg ataatgactg ccgcaacctt
301 caacatagac tttatgagtg ttctctataga aatagagatg tagatcatga gttcgtggat
361 gaattttatg catatttgcg taagcacttc tctatgatga tt

//

LOCUS MN312859 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate SZ140289 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312859

VERSION MN312859

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat SARS-like coronavirus"

/mol_type="genomic RNA"

/isolate="SZ140289"

/host="Rhinolophus sinicus"

/db_xref="taxon:1508227"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88479"

/translation="RAMPNMLRIMASLVLARKHSTCCNLSHRFYRLANECAQVLSEMV

MCGGSLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGDKIADKYVRNLQH

RLYECLYRNRDVDHEFVDEFYAYLRKHFSMMI"

ORIGIN

1 agagccatgc ctaatatgct tagaatcatg gcttccttg ttcttgctcg caaacatagc
61 acttggtgta actgtcaca cegtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcatgtgtgg cggctcatta tacgtgaaac caggtggaac atcatccggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacatct gtcaagcagt aacagctaat
241 gtaaatgcac ttctctcaac tgatggtaat aagattgcag ataagtacgt cgcacacctt
301 caacatagac tttatgagtg tctctataga aatagagatg tagatcatga gttcgtggat
361 gaattttatg catatttgcg taagcacttc tctatgatga tt

//

LOCUS MN312860 357 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate SZ140311 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312860

VERSION MN312860

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..357

/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="SZ140311"
/host="Hipposideros terasensis"
/db_xref="taxon:1805463"
/country="China"

gene <1..>357

/gene="RdRp"

CDS <1..>357

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88480"

/translation="RAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSEMV
LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR
RLYMGIYRTNTVDNDLV"

ORIGIN

1 agagctatgc ccaactggt gcgtatatt gccagtctaa tttggcgcg aaaacactct
61 acttgctgca atgcctctga aagattttat aggttagcaa atgagtgtgc ccaagtgett
121 agtgagatgg tttatgtgg aggtggattc tatgtaaac caggaggtag aagtagtggc
181 gattccacca ctgcatatgc aatagtgtg ttaatatatt gccaagcggg gtagtcta

241 taaacacct tttgtctat agatggtaat aaaatataca caacttacgt acaagagttg
301 caacgtaggt tgtatatggg tatttatcgc actaacacag tggataatga ttagtt

//

LOCUS MN312861 357 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate SZ140312 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312861

VERSION MN312861

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 357)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..357

/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="SZ140312"
/host="Hipposideros armiger"
/db_xref="taxon:1805463"
/country="China"

gene <1..>357
/gene="RdRp"

CDS <1..>357
/gene="RdRp"

/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88481"
/translation="RAMPNLLRIFASLILARKHSTCCNASERFYRLANCAQVLSEMV
LCGGGFYVKPGGTSSGDSTTAYANSVFNICQAVSANLNTFLSIDGNKIYTTYVQELQR
RLYMGIYRTNTVDNDLV"

ORIGIN

1 agagctatgc ccaactgtt gcgtatatt gccagtctaa tttggcgcg aaaacactct
61 acttgcctga atgcctctga aagatttat aggttagcaa atgagtgtgc ccaagtgtt
121 agtgagatgg tttatgtgg aggtggatc tatgtaaac caggaggtac aagtagtggc
181 gattcacca ctgcatatgc aaatagtgtg ttaatatatt gccaagcggg gtagtgctaat
241 taaacacct tttgtctat agatggtaat aaaatataca caacttacgt acaagagttg
301 caacgtaggt tgtatatggg tatttatcgc actaacacag tggataatga ttagtt

//

LOCUS MN312862 348 bp RNA linear VRL 07-NOV-2019
DEFINITION Tylonycteris bat coronavirus HKU4 isolate SZ140324 RNA-dependent
RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312862

VERSION MN312862

KEYWORDS .

SOURCE Tylonycteris bat coronavirus HKU4

ORGANISM Tylonycteris bat coronavirus HKU4

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 348)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..348

/organism="Tylonycteris bat coronavirus HKU4"

/mol_type="genomic RNA"

/isolate="SZ140324"

/host="Tylonycteris pachypus"

/db_xref="taxon:694007"

/country="China"

gene <1..>348

/gene="RdRp"

CDS <1..>348

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88482"

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LCGGGYVVKPGGTSSGDATTAYANSVFNILQATTANVSALMSANGNTIVDREIKDMQF

DLYTNAVYRKVVDPDP"

ORIGIN

1 agagctatgc ctaatatgtg tcgcatttta gcgtcattga tttggcacg taagcatagt

61 acttgttgta ctaattctga taggttctac cgcttagcca atgagtgtgc tcaagtgcta

121 agtgagtatg tcctatgcgg tgggtgctat tatgttaaac caggaggtac gagtagtggt

181 gatgcaacta ctgcttatgc caacagtgtt ttaacatat tacaagccac tacagctaat

241 gttagtgcac ttatgagtgc taatggtaac acgattgtag atcgtgaaat aaaggatatg

301 caatttgatt tgtataccaa tgtgtataga aaagtagtgc ctgacatc

//

LOCUS MN312863 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate TL13269 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312863

VERSION MN312863

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402

/organism="Bat betacoronavirus"

/mol_type="genomic RNA"

/isolate="TL13269"

/host="Hipposideros pratti"

/db_xref="taxon:1805463"

/country="China"

gene <1..>402

/gene="RdRp"

CDS <1..>402

/gene="RdRp"

/codon_start=1

/product="RNA-dependent RNA polymerase"

/protein_id="QGA88483"

/translation="RAMPNMLRIFASLILARKHNTCCNVSEYYRLANECAQVLSEMV

LCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANISALLAANGNKIVDVYIRDLQR

KLYANVYRSVHVVDYKVFVDEYYAFLRKHFSSMMI"

ORIGIN

1 agagctatgc ctaatatgtt gcgtatttc gcttcattga ttttagccag aaagcacaac
61 acgtgttgta atgtaagtga aagatactac agactggcta atgagtgcgc tcaagtattg
121 agtgagatgg ttctatgtgg tgggtctttg tatgtgaaac caggtggtac ttctccggg
181 gacgcaacca ctgcatatgc aaattctgtt ttcaatatct gtcaagcagt aacggccaac
241 attagtgcct tgctagcagc taatggaaac aagatagtcg atgtttacat tcgagactta
301 cagcgtaaac tgtatcgcaa tgtttatcgt agtgccatg ttgattataa gttcgtgat
361 gagtactacg catttttgcg taaacacttt tctatgatga tt

//

LOCUS MN312864 402 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat betacoronavirus isolate TL13272 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312864

VERSION MN312864

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished
REFERENCE 2 (bases 1 to 402)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..402
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="TL13272"
/host="Hipposideros pratti"
/db_xref="taxon:1805463"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
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/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88484"
/translation="RAMPNMLRIFASLILARKHTTCCTVSEYYRLANECAQVLSEMV
LCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANISALLAANGNKIVDVYIRDLQR
KLYANVYRSVHVDYKVFVDEYYAFLRKHFSSMMI"

ORIGIN

1 agagctatgc ctaatgtt gcgtatttc gcatcattga ttttagccag aaagcacacc
61 acgtgttgta ctgtaagtga aagatactac agactggcta atgagtgcgc tcaagtattg
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181 gacgcaacca ctgcatatgc aaattctgtt tcaacatct gtcaagcagt aacggccaac
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301 cagcgtaaac tgtatgcgaa ttttatcgt agtgtccatg ttgattataa gttcgtagat
361 gagtactacg ccttttgcg taacacttt tctatgatga tt

//

LOCUS MN312865 402 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat betacoronavirus isolate TL13277 RNA-dependent RNA polymerase
(RdRp) gene, partial cds.

ACCESSION MN312865

VERSION MN312865

KEYWORDS .

SOURCE Bat betacoronavirus

ORGANISM Bat betacoronavirus

Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; unclassified Betacoronavirus.

REFERENCE 1 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 402)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..402
/organism="Bat betacoronavirus"
/mol_type="genomic RNA"
/isolate="TL13277"
/host="Hipposideros pratti"
/db_xref="taxon:1805463"
/country="China"
gene <1..>402
/gene="RdRp"
CDS <1..>402
/gene="RdRp"
/codon_start=1
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88485"
/translation="RAMPNMLRIFASLILARKHNTCCNVSEYYRLANECAQVLSEMV
LCGGALYVKPGGTSSGDATTAYANSVFNICQAVTANISALLAANGNKIVDVYIRDLQR
KLYANVYRSVHVDYKVFVDEYYAFLRKHFSSMMI"

ORIGIN

1 agagctatgc ctaatgtt gcgtatttc gcttcattga ttttagccag aaagcacaac
61 acgtgttgta atgtaagtga aagatactac agactggcta atgagtgcgc tcaagtattg
121 agtgagatgg ttctatgtgg tgggtcttg tatgtgaaac caggtggtac ttctccggt
181 gacgcaacca ctgcatatgc aaattctgtt tcaatatct gtcaagcagt aacggccaac
241 attagtgcct tgctagcagc taatggaaac aagatagtcg atgtttacat tcgagactta
301 cagcgtaaac tgtatcgcaa tgtttatcgt agtgtccatg ttgattataa gttcgtgat
361 gagtactac cattttgcg taacacttt tctatgatga tt

//

LOCUS MN312866 912 bp RNA linear VRL 07-NOV-2019

DEFINITION Pipistrellus bat coronavirus HKU5 isolate XW140589 RNA-dependent RNA polymerase (RdRp) gene, partial cds.

ACCESSION MN312866

VERSION MN312866

KEYWORDS .

SOURCE Pipistrellus bat coronavirus HKU5

ORGANISM Pipistrellus bat coronavirus HKU5

Viruses; Riboviria; Nidovirales; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Merbecovirus.

REFERENCE 1 (bases 1 to 912)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 912)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..912

/organism="Pipistrellus bat coronavirus HKU5"
/mol_type="genomic RNA"
/isolate="XW140589"
/host="Pipistrellys abramus"
/db_xref="taxon:694008"
/country="China"
gene <1..>912
/gene="RdRp"
CDS <1..>912
/gene="RdRp"
/codon_start=3
/product="RNA-dependent RNA polymerase"
/protein_id="QGA88486"
/translation="CCTNTDRFYRLANECAQVLSEYVLCGGGYVVKPGGTSSGDATTA
YANSVFNILQATTANVSALMGANGNTIVDKVKDMQFELYVNVYRKSQDPDKFVDRYY
AFLNKHFSMMILSDDGVVCYNSDYATKGYIASIQNFKETLYYQNNVFMSEAKCWVESD
LKKGPHEFCSQHTLFIKDGDDGYFLPYDPSPRILSAGCFVDDIVKTDGTLMVERFVSL
AIDAYPLTKHDDPEYQNVFWVYLQYIEKLYKDLTGHMLDSYSVMLCGDNSAKFWEESE
YRDLYTAPTTLQAVGSCVVCHSQTSLR"

ORIGIN

1 cttgctgtac taactactgat agattttacc gcttagcaaa tgagtgcgct caagtgccta
61 gtgagtatgt cctttgtggt ggtggttact acgtcaaacc tggggggacc agtagcggcg
121 atgcaaccac tgcttacgct aatagtgttt ttaacattct gcaggcgact accgcaaatg
181 ttagtgcact tatgggcgct aatggcaaca ctattgttga caaagaagtt aaggacatgc
241 agtttgagct gtatgttaat gtttacagaa agagccaacc tgaccctaag tttgtggata
301 ggtattatgc ctttctgaat aagcacttct ccatgatgat actgtcggat gacggtgtcg
361 tatgctataa tagtgattat gccacaaaag ggtatatcgc atctattcaa aattttaagg
421 agactctgta ttacagaat aatgtcttca tgcagagagc taaatgctgg gtggaatccg
481 atttgaaaaa aggtccacat gagttctgct ctacagatac acttttcata aaggacggtg
541 acgatgggta cttcctacct tatccagacc ctcaagaat tttgtctgcc ggttgcttcg
601 ttgatgacat cgcaagaca gacggtacgc tcatggttga gagattcgtg tcattggcaa
661 tagacgctta tctctcagc aagcatgatg atcctgaata ccaaatgta ttctgggtgt
721 atttacagta tatagaaaaa ctgtataaag acctaacagg acacatgctt gacagttatt
781 ctgtcatgct atgtggtgat aattcagcca aattttggga agagagcttc tatagagacc
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LOCUS MN312867 355 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate YC131468 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.
ACCESSION MN312867
VERSION MN312867
KEYWORDS .
SOURCE Bat SARS-like coronavirus
ORGANISM Bat SARS-like coronavirus
Viruses; Riboviria; Nidovirales; Coronavirineae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.
REFERENCE 1 (bases 1 to 355)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.
TITLE Origin and cross-species transmission of bat coronaviruses in China
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 355)
AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission
JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China
FEATURES Location/Qualifiers
source 1..355
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/mol_type="genomic RNA"
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/country="China"
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ORIGIN

1 agagccatgc ctaacatgct tagaattatg gcttctcttg ttcttgctcg caaacatagc
61 acttgctgta acttgtcaca ccgtttctat agattagcta atgagtgtgc acaagtatta
121 agtgagatgg tcatgtgtgg aggctcacta tatgtaaaac caggtggaac atcatcaggt
181 gatgccacaa ctgcttatgc taatagtgtg ttaacattt gtcaagcggg gacagctaat
241 gtaaagcac tctttcaac tgatggtaac aagattgctg acaagtacgt tcgcaacctc
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LOCUS MN312868 355 bp RNA linear VRL 07-NOV-2019
DEFINITION Bat SARS-like coronavirus isolate YC131481 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312868

VERSION MN312868

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronaviridae;

Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 355)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 355)

AUTHORS Latinne, A., Hu, B., Zhu, G., Zhang, L., Olival, K.J.,

Zambrana-Torrel, C., Li, B., Zhang, W., Shi, Z. and Daszak, P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..355
/organism="Bat SARS-like coronavirus"
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/isolate="YC131481"
/host="Rhinolophus ferrumequinum"
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/country="China"
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RLYECLYRNRDVDHEF"

ORIGIN

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121 agtgagatgg tcattgtcgg aggctcacta tatgtaaacc caggtggaac atcatcaggt
181 gatgccacaa ctgcctacgc taatagtgtg ttaacattt gcaagctgt gacagcta
241 gtaaattcac ttctctcaac tgatggtaac aagattgctg acaagtacgt tcgcaacctc
301 caacacaggc tatatgagtg ttcttataga aatagagacg ttgatcatga atttg

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LOCUS MN312869 344 bp RNA linear VRL 07-NOV-2019

DEFINITION Bat SARS-like coronavirus isolate YX131457 RNA-dependent RNA
polymerase (RdRp) gene, partial cds.

ACCESSION MN312869

VERSION MN312869

KEYWORDS .

SOURCE Bat SARS-like coronavirus

ORGANISM Bat SARS-like coronavirus

Viruses; Riboviria; Nidovirales; Coronavirinae; Coronaviridae;
Orthocoronavirinae; Betacoronavirus; Sarbecovirus.

REFERENCE 1 (bases 1 to 344)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Origin and cross-species transmission of bat coronaviruses in China

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 344)

AUTHORS Latinne,A., Hu,B., Zhu,G., Zhang,L., Olival,K.J.,
Zambrana-Torrel,C., Li,B., Zhang,W., Shi,Z. and Daszak,P.

TITLE Direct Submission

JOURNAL Submitted (13-AUG-2019) Key laboratory of special pathogens and
biosafety, CAS, Wuhan Institute of Virology, Chinese Academy of
Sciences, No. 44 Xiao Hong Shan, Wuhan, Hubei 430071, China

FEATURES Location/Qualifiers

source 1..344
/organism="Bat SARS-like coronavirus"
/mol_type="genomic RNA"
/isolate="YX131457"
/host="Rhinolophus ferrumequinum"
/db_xref="taxon:1508227"

gene /country="China"
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/gene="RdRp"
CDS <1..>344
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/protein_id="QGA88489"
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SLYVKPGGTSSGDATTAYANSVFNICQAVTANVNALLSTDGNKIADKYVRNLQHRLYE
CLYRNRDVDHEF"

ORIGIN

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61 cttgtcacac cgttctata gattagctaa tgagtgtgca caagtattaa gtgagatggt
121 catgtgtgga ggctcactat atgtaaaacc aggtggaaca tcatcaggtg atgccacaac
181 tgcttatgct aatagtgtgt ttaacatttg tcaagcgggtg acagctaatg taaatgcact
241 tcttcaact gatggaaca agattgctga caagtacgtt cgcaacctcc aacacaggct
301 atatgagtgt ctctatagaa atagagacgt tgatcatgaa tttg

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