```
NC_015936.1 | Kobuvirus | Peromyscus crinitus | USA | 2010
                                                   NC_034971.1 | Kobuvirus | SMCD-59 | Canis lupus familiaris | China | 2015
                                                   NC_001918.1 | Kobuvirus | A846/88 | Homo sapiens | Japan | 1998
                                                    NC 074775.1 | Kobuvirus | Homo sapiens | Japan | 2001
                                                    ▲ PP766456 | Kobuvirus | KEL86 | Eidolon dupreanum | Madagascar | 2014
                                                     PP766451 | Kobuvirus | ANGB110.1 | Eidolon dupreanum | Madagascar | 2015
                                                    △ OQ818322 | Kobuvirus | KEL318 | Eidolon dupreanum | Madagascar | 2019
                                                     NC_027054.1 | Kobuvirus | JS-02a-CHN/2014/China | Sus scrofa | China | 2014
                                                    _____NC_016769.1 | Kobuvirus | SH-W-CHN/2010/China | Sus scrofa | China | 2010
                                                    NC_011829.1 | Kobuvirus | Sus scrofa | Hungary | 2007
                                               NC_023422.1 | Kobuvirus | 12Q108 | Capra hircus | South Korea | 2012
                                             NC_004421.1 | Kobuvirus | Bos taurus | Japan | 2003
                                             NC_027918.1 | Kobuvirus | Bos taurus | Japan | 2015
                                            NC_027919.1 | Kobuvirus | Bos taurus | Japan | 2014
                                                     r NC_012957.1 | Salivirus | Homo sapiens | Nigeria | 2007
                                                   NC_012986.1 | Salivirus | 02394-01 | Homo sapiens | USA | 2002
                                                   NC_025114.1 | Salivirus | SaliV-FHB | Homo sapiens | China | 2011
                                                 NC_022802.1 | Sakobuvirus | FFUP1 | Felis catus | Portugal | 2012
                                                       NC_024765.1 | Unclassified picornavirus | 55C | Gallus gallus | Hong Kong | 2008
                                                    NC_028380.1 | Sicinivirus | JSY | Gallus gallus | China | 2015
                                                    NC_023861.2 | Sicinivirus | Gallus gallus | Ireland | 2014
                                                          NC_018400.1 | Gallivirus | Meleagris gallopavo | Hungary | 2011
                                                 NC_036588.1 | Passerivirus | Uraeginthus sp. | Hungary | 2014
                                                NC_014411.1 | Passerivirus | Turdus pallidus | Hong Kong | 2007
                                                                 NC_038317.1 | Kunsagivirus | Coracias garrulus | Hungary | 2011
                                              NC_014413.1 | Oscivirus | Turdus hortulorum | Hong Kong | 2006
                                               NC_014412.1 | Oscivirus | Copsychus saularis | Hong Kong | 2006

→ NC_032126.1 | Livupivirus | Lissotriton vulgaris | Hungary | 2014
                                               NC_040684.1 | Ludopivirus | Anser albifrons | Hungary | 2013
                                                                            OQ818317 | Kunsagivirus | KEL148 | Eidolon dupreanum | Madagascar | 2018
                                                                             NC_033818.1 | Kunsagivirus | Eidolon helvum | Cameroon | 2013
                                                                          NC_034206.1 | Kunsagivirus | baboon/M27-KuV/1986/TAN | Papio cynocephalus | Tanzania | 1986
                                                                             NC 076017.1 | Mosavirus | Marmota himalayana | China | 2013
                                                 NC_038880.1 | Rosavirus | Peromyscus crinitus | USA | 2010
                                                  NC_024070.1 | Rosavirus | Homo sapiens | Gambia | 2008
                                                      NC_075425.1 | Rosavirus | Rattus andamanensis | Hong Kong | 2008
                                                      NC_031106.1 | Rosavirus | Rattus andamanensis | Hong Kong | 2009
                                             NC_031105.1 | Rosavirus | Rattus norvegicus | Hong Kong | 2009
                                                —— NC_040611.1 | Dicipivirus | Erinaceus roumanicus | Hungary | 2015
                                                 NC_043544.1 | Rafivirus | Gekko similignum | China | 2018
                                                 NC_023988.1 | Unclassified picornavirus | UF4 | Indotestudo forstenii | USA | 2009
                                                    NC_040642.1 | Unclassified picornavirus | Rhinella marina | Australia | 2017
                                            NC_076218.1 | Tropivirus | Teratoscincus roborowskii | China | 2018
                                           NC_076006.1 | Tropivirus | Tropidophorus sinicus | China | 2018
                                                NC_076245.1 | Cyprivirus | Danio rerio | USA | 2017
                                                    NC_021201.1 | Megrivirus | Meleagris gallopavo | USA | 2011
                                                 NC_023858.1 | Megrivirus | Meleagris gallopavo | Hungary | 2011
                                                  NC_024768.1 | Unclassified picornavirus | 5C | Gallus gallus | Hong Kong | 2008
                                                 NC_039235.1 | Megrivirus | Gallus gallus | Hungary | 2012
                                                 NC_024769.1 | Megrivirus | 27C | Gallus gallus | Hong Kong | 2008
                                                                   NC_009891.1 | Aquamavirus | HO.02.21 | Pusa hispida | Canada | 2008
                                                        NC_024770.1 | Gallivirus | 518C | Gallus gallus | Hong Kong | 2010
                                                        NC 028964.1 | Gallivirus | Gallus gallus | Hungary | 2013
                                                              NC_075992.1 | Anativirus | Gallus gallus | Hungary | 2013
                                                        NC_021178.1 | Dicipivirus | Canis lupus familiaris | Hong Kong | 2008
                                                    NC_039004.1 | Megrivirus | KGI-Bel-P5/2015 | Pygoscelis adeliae | Germany | 2015
                           NC_038957.1 | Megrivirus | Columbidae | Hong Kong | 2011
                                           NC_055108.1 | Poecivirus | Poecile atricapillus | USA | 2002
                                                                        NC_033793.1 | Megrivirus | HN56 | Anatidae | China | 2014
                                                                        NC_024120.1 | Megrivirus | Anas platyrhynchos | USA | 2014
                                                  NC_034381.1 | Mischivirus | Miniopterus schreibersii | China | 2010
                                                  NC_043072.1 | Mischivirus | Miniopterus schreibersii | Hungary | 2013
                                                — NC 075428.1 | Mischivirus | A128thr | Canis lupus familiaris | USA | 2005
                                               NC_055161.1 | Ailurivirus | Ailuropoda melanoleuca | China | 2015
                                               NC_035198.1 | Ailurivirus | Ailuropoda melanoleuca | China | 2017
                                            OQ818316 | Mischivirus | AMB150 | Pteropus rufus | Madagascar | 2018
                                           NC_034385.1 | Cosavirus | Homo sapiens | Pakistan | 2007
                                          NC_012800.1 | Cosavirus | 553 | Homo sapiens | South Asia | 2008
                                           NC_025961.1 | Cosavirus | Cosa-CHN | Homo sapiens | China | 2012
                                           NC_012801.1 | Cosavirus | 2263 | Homo sapiens | Pakistan | 2008
                                               NC_012802.1 | Cosavirus | 5004 | Homo sapiens | Pakistan | 2008
                                          NC_023984.1 | Cosavirus | Cosavirus_Amsterdam_1994 | Homo sapiens | Netherlands | 1994
                                           NC_012798.1 | Cosavirus | Homo sapiens | Australia | 1981
                                             NC_001366.1 | Cardiovirus | Mus musculus | United Kingdom | 1990
                                             NC_075977.1 | Cardiovirus | RtMruf-PicoV/JL2014-1 | Rodentia | China | 2018
                                              NC_038305.1 | Cardiovirus | BCV-1 | Rattus norvegicus | USA | 2010
                                                    NC_026470.1 | Mischivirus | PREDICT-06105 | Macronycteris gigas | Democratic Republic of the Congo | 2013
                                     NC_011349.1 | Senecavirus | SVV-001 | Homo sapiens | USA | 2008
                                            NC_010810.1 | Cardiovirus | Homo sapiens | USA | 2008
                                            NC_009448.2 | Cardiovirus | Homo sapiens | USA | 2007
                                    NC_076099.1 | Cardiovirus | RtMrut-PicoV/JL2014-1 | Rodentia | China | 2018
                                       NC_023987.1 | Mosavirus | Coracias garrulus | Hungary | 2011
                                           NC_038318.1 | Mosavirus | Peromyscus crinitus | USA | 2010
                                                 OQ818323 | Teschovirus | MIZ190 | Rousettus madagascariensis | Madagascar | 2018
                                                  OQ818324 | Teschovirus | MIZ205 | Rousettus madagascariensis | Madagascar | 2018
                                           OQ818318 | Teschovirus | KEL164 | Eidolon dupreanum | Madagascar | 2018
                                                         NC_075980.1 | Teschovirus | HuN41 | Sus scrofa | China | 2017
                                                          NC_003985.1 | Teschovirus | F65 | Homo sapiens | United Kingdom | 1999
                                              NC_025675.1 | Hunnivirus | NrHuV/NYC-E21 | Rattus norvegicus | USA | 2012
                                              NC_018668.1 | Hunnivirus | Bos taurus | Hungary | 2008
                                              NC_026315.1 | Malagasivirus | Mis101308/2012 | Lemur catta | USA | 2012
                                               NC_026316.1 | Malagasivirus | Nai108015/2012 | Varecia variegata | USA | 2012
                                              NC_055159.1 | Tottorivirus | Sus scrofa domesticus | Japan | 2015
                                                NC_026249.1 | Bopivirus | TCH6 | Bos taurus | USA | 2013
                                                 NC_003983.1 | Erbovirus | Equus caballus | Austria | 1996
                                                    NC_039209.1 | Aphthovirus | Equus caballus | USA | 2018
                                                     NC_038303.1 | Aphthovirus | Bos taurus | Germany | 1962

    NC_034245.1 | Aphthovirus | Homo sapiens | USA | 2017

                                                 NC_010354.1 | Aphthovirus | Bos taurus | United Kingdom | 2008
                                       NC_039210.1 | Aphthovirus | o6pirbright iso58 | Bos taurus | United Kingdom | 2019
                                       NC_035110.1 | Unclassified picornavirus | KGI–BeI–22 | Arctocephalus gazella | Antarctica | 2015
                                                    NC_027214.1 | Ampivirus | Lissotriton vulgaris | Hungary | 2013
                                                      △ OQ818337 | Hepatovirus | KEL148 | Eidolon dupreanum | Madagascar | 2018
                                                        PP766457 | Hepatovirus | KEL148.1 | Eidolon dupreanum | Madagascar | 2018
                                                      ▲ PP766455 | Hepatovirus | KEL72 | Eidolon dupreanum | Madagascar | 2014
                                                  NC 028366.1 | Hepatovirus | M32Eidhel2010 | Eidolon helvum | Ghana | 2010
                                             NC_028981.1 | Hepatovirus | TN1 | Tupaia chinensis | China | 2012
                                               NC_028365.1 | Hepatovirus | Igel8Erieur2014 | Erinaceus europaeus | Germany | 2014
                                                 NC_038316.1 | Hepatovirus | BUO2BF86Colafr2010 | Coleura afra | Ghana | 2010
                                               NC_027818.1 | Hepatovirus | Phoca vitulina | USA | 2011
                                                NC_028363.1 | Hepatovirus | RMU101637Micarv2010 | Microtus arvalis | Germany | 2010
                                                      → NC_038315.1 | Hepatovirus | KEF121Sigmas2012 | Sigmodon mascotensis | Mexico | 2012
                                              NC_001489.1 | Hepatovirus | Homo sapiens | USA | 1987
                                                     — NC_028364.1 | Hepatovirus | KS121232Sorara2012 | Sorex araneus | Germany | 2012
                                           NC_038313.1 | Hepatovirus | SMG18520Minmav2014 | Miniopterus | Madagascar | 2014
                                               NC_038314.1 | Hepatovirus | CIV459Lopsik2004 | Lophuromys sikapusi | Cote d'Ivoire | 2004
                                           NC_075280.1 | Unclassified picornavirus | yc-1 | Grus japonensis | China | 2014
                                                         NC_075987.1 | Gruhelivirus | yc-2 | Grus japonensis | China | 2014
                                                         NC 075995.1 | Rohelivirus | rodent/Ds/PicoV/IM2014 | Rodentia | China | 2018
                                                          NC_076217.1 | Fipivirus | Chelidoperca sp. | China | 2018
                                                              NC_076009.1 | Fipivirus | Banjos banjos | China | 2018
                                                            NC_076015.1 | Fipivirus | Trachurus | China | 2018
                                                 NC 076013.1 | Fipivirus | Hemiculter leucisculus | China | 2018
                                                           NC_076012.1 | Fipivirus | Hemiculter leucisculus | China | 2018
                                                                    NC_018506.1 | Limnipivirus | 04-032 | Lepomis macrochirus | USA | 2003
                                                              NC_076220.1 | Limnipivirus | Hemibagrus guttatus | China | 2018
                                                                       NC_076219.1 | Rajidapivirus | Okamejei acutispina | China | 2018
                                                                  NC_015626.1 | Unclassified picornavirus | Columbidae | Norway | 2003
                                               NC 003990.1 | Tremovirus | Aves | United Kingdom | 1997
                                                 NC 040673.1 | Tremovirus | Pelodiscus sinensis | China | 2011
                                            — NC 076011.1 | Fipivirus | Crossorhombus sp. | China | 2018
                                            NC_030843.1 | Unclassified picornavirus | Chiroptera | USA | 2016
                                                   NC_022332.1 | Potamipivirus | Anguilla anguilla | Germany | 2005
                                                              NC_075994.1 | Potamipivirus | TSPV | Gasterosteus aculeatus | USA | 2016
                                          NC_033819.1 | Crohivirus | Eidolon helvum | Cameroon | 2013
                                                 NC_035779.1 | Unclassified picornavirus | Falco vespertinus | Hungary | 2008
                                                  NC_003976.2 | Parechovirus | Homo sapiens | Sweden | 2002
                                                      NC_034453.1 | Parechovirus | MpPeV1 | Mustela putorius furo | Netherlands | 2013
                                                         NC_076404.1 | Marsupivirus | 1 | Phascolarctos cinereus | Australia | 2016
                                                       NC_075445.1 | Grusopivirus | LoPV–1 | Trichoglossus moluccanus | China | 2015
                                                       NC_075281.1 | Grusopivirus | yc-5 | Grus japonensis | China | 2014
                                                  NC_021482.1 | Parechovirus | Hylomyscus | Central African Republic | 1972
                                                       NC_034617.1 | Megrivirus | Circus aeruginosus | Hungary | 2014
                                                   NC_075282.1 | Grusopivirus | yc-6 | Grus japonensis | China | 2014
                                                   —— NC_001897.1 | Parechovirus | Homo sapiens | USA | 1998
                                               NC_023985.1 | Aalivirus | Anas platyrhynchos | China | 2012
                                                          NC_038319.1 | Parechovirus | Homo sapiens | USA | 1992
                                                      NC_008250.2 | Avihepatovirus | Aves | South Korea | 2006
                                                       NC_028970.1 | Avisivirus | Gallus gallus | Hungary | 2013
                                                       NC_024767.1 | Avisivirus | 45C | Gallus gallus | Hong Kong | 2008
                                                   NC_038304.1 | Avisivirus | USA-IN1 | Meleagris gallopavo | USA | 2010
                                       NC_025432.1 | Orivirus | Gallus gallus | Hungary | 2013
                                       NC_024766.1 | Avisivirus | 44C | Gallus gallus | Hong Kong | 2008
                                           NC_038961.1 | Shanbavirus | BtMf-PicoV-1/SAX2011 | Miniopterus fuliginosus | China | 2011
                                       NC_023162.1 | Limnipivirus | F37/06 | Cyprinus carpio | Germany | 2006
                                       NC_039212.1 | Limnipivirus | FHMPV-1 | Pimephales promelas | USA | 2011
                                             NC_076508.1 | Pemapivirus | Pelodiscus sinensis | China | 2018
                                              NC_076005.1 | Pemapivirus | Mauremys megalocephala | China | 2018
                                              NC_025474.1 | Crohivirus | Crocidura hirta | Zambia | 2012
                                             —— NC_025890.1 | Torchivirus | Testudo hermanni | Germany | 2004
                                   NC_001617.1 | Enterovirus | Homo sapiens | USA | 1988
                                   NC_038311.1 | Enterovirus | Homo sapiens | USA | 2009
                                    PP766466 | Sapelovirus | KEL298.2 | Eidolon dupreanum | Madagascar | 2019
                                   OQ818320 | Sapelovirus | KEL233 | Eidolon dupreanum | Madagascar | 2018
                                 NC_033820.1 | Sapelovirus | Eidolon helvum | Cameroon | 2013
                                    PP766462 | Sapelovirus | KEL273.1 | Eidolon dupreanum | Madagascar | 2019
                                    OQ818321 | Sapelovirus | KEL272 | Eidolon dupreanum | Madagascar | 2019
                       OQ818329 | Sapelovirus | MIZ243 | Rousettus madagascariensis | Madagascar | 2018
                           NC_003987.1 | Sapelovirus | Sus scrofa | USA | 2002
                            NC_004451.1 | Sapelovirus | Simiiformes | USA | 2003
               NC_015941.1 | Unclassified picornavirus | Miniopterus magnater | Hong Kong | 2005
               NC_076037.1 | Bopivirus | Bos taurus | Japan | 2009
                NC_077220.1 | Unclassified picornavirus | Ovis aries | United Kingdom | 2019
             NC_076038.1 | Bopivirus | Bos taurus | Japan | 2009
                         NC_016156.1 | Unclassified picornavirus | Felis catus | Hong Kong | 2007
                          NC_015934.1 | Unclassified picornavirus | Rhinolophus sinicus | Hong Kong | 2008
                           NC_055160.1 | Rabovirus | MPV/NYC/2014/M005/0074 | Mus musculus | USA | 2014
                NC_040605.1 | Sapelovirus | Marmota himalayana | China | 2013
                 NC_055156.1 | Rabovirus | RtMp-PicoV/YN2014 | Rodentia | China | 2018
                         OQ818328 | Unclassified picornavirus | MIZ240 | Rousettus madagascariensis | Madagascar | 2018
                         OQ818325 | Unclassified picornavirus | MIZ214 | Rousettus madagascariensis | Madagascar | 2018
                      PP766472 | Unclassified picornavirus | MIZ405.4 | Rousettus madagascariensis | Madagascar | 2019
                       PP766469 | Unclassified picornavirus | MIZ405.1 | Rousettus madagascariensis | Madagascar | 2019
                                             NC_018226.1 | Pasivirus | Sus scrofa | France | 2010
                                                   NC_026921.1 | Harkavirus | Falco tinnunculus | Hungary | 2013
                                                   NC_076008.1 | Hemipivirus | Hemidactylus bowringii | China | 2018
                     NC_015940.1 | Unclassified picornavirus | Miniopterus pusillus | Hong Kong | 2008
                              NC_076040.1 | Shanbavirus | BtNv-PicoV/SC2013 | Nyctalus velutinus | China | 2013
                               NC_076039.1 | Shanbavirus | BtRf-PicoV-1/YN2012 | Rhinolophus ferrumequinum | China | 2010
                     NC_016964.1 | Mischivirus | 325 | Canis lupus familiaris | Hong Kong | 2008
                      NC_016403.1 | Unclassified picornavirus | Coturnix coturnix | Hungary | 2010
                    NC 006553.1 | Anativirus | TW90A | Simiiformes | Taiwan | 2004
           NC_013695.1 | Enterovirus | Simian picornavirus strain N203 | Simiiformes | USA | 2002
        NC_010415.1 | Enterovirus | Simian enterovirus SV6 | Simiiformes | USA | 2007
          ——— NC 024073.1 | Enterovirus | CPML_8109/08 | Mandrillus sphinx | Cameroon | 2008
              NC_001472.1 | Enterovirus | Homo sapiens | USA | 1987
              NC 038307.1 | Enterovirus | Homo sapiens | USA | 1992
               NC_030454.1 | Enterovirus | Homo sapiens | India | 2013
               NC_001612.1 | Enterovirus | Homo sapiens | USA | 1994
              NC 038306.1 | Enterovirus | CA2 | Homo sapiens | USA | 2019
            NC_038308.1 | Enterovirus | Homo sapiens | USA | 2004
            NC 001430.1 | Enterovirus | Homo sapiens | USA | 1990
         NC_002058.3 | Enterovirus | Homo sapiens | USA | 1980
              NC_003988.1 | Enterovirus | Homo sapiens | USA | 1999
                NC_008714.1 | Enterovirus | W1 | Trichosurus vulpecula | New Zealand | 2007
               NC_029854.1 | Enterovirus | Bos grunniens | China | 2014
              NC_021220.1 | Enterovirus | Bos taurus | Germany | 2006
              NC_033695.1 | Enterovirus | Bos taurus | Japan | 2014
       NC_038310.1 | Enterovirus | Camelus dromedarius | United Arab Emirates | 2013
         NC_001859.1 | Enterovirus | Bos taurus | USA | 1988
             NC_037654.1 | Enterovirus | LLT03 | Budorcas taxicolor tibetana | China | 2013
         NC_034267.1 | Enterovirus | JL14 | Capra hircus | China | 2014
           NC 004441.1 | Enterovirus | Sus scrofa | Germany | 2002
            NC_009996.1 | Enterovirus | Homo sapiens | Hong Kong | 2007
            NC_038878.1 | Enterovirus | NAT001 | Homo sapiens | USA | 2001
            NC_001490.1 | Enterovirus | Homo sapiens | USA | 1984
            NC_038312.1 | Enterovirus | Homo sapiens | USA | 2019
NC_038989.1 | Enterovirus | rodent/Ee/PicoV/NX2015 | Rodentia | China | 2018
        NC_029905.1 | Enterovirus | SEV-gx | Macaca mulatta | China | 2014
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0.2

Bat hostNon-bat host

Genus

AalivirusAilurivirus

Ampivirus

Anativirus
Aphthovirus
Aquamavirus
Avihepatovirus

Avinepatoviru
Avisivirus
Bopivirus
Cardiovirus
Cosavirus
Crohivirus
Cyprivirus
Dicipivirus
Enterovirus
Erbovirus
Fipivirus
Gallivirus
Gruhelivirus
Harkavirus

Harkavirus

HemipivirusHepatovirusHunnivirus

Kobuvirus Kunsagivirus

Limnipivirus

Livupivirus
Ludopivirus
Malagasivirus

Marsupivirus
Megrivirus
Mischivirus
Mosavirus
Orivirus
Oscivirus
Parechovirus
Pasivirus

Passerivirus Pemapivirus

PoecivirusPotamipivirus

RajidapivirusRohelivirus

Rosavirus

Sakobuvirus Salivirus Sapelovirus

Senecavirus
Shanbavirus
Sicinivirus
Teschovirus
Torchivirus
Tottorivirus
Tremovirus

Bootstrap

TropivirusUnclassified picornavirus

Rabovirus Rafivirus