**Table** . The viral-infection-related RNA-seq datasets from which viral circRNAs were detected, and the virus reference genomes used.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Dataset** | **Accession number of virus reference genome** | **Virus name** | **Virus taxid** | **Virus group** | **Virus family** | **Genome type** | **Host** | **Cell/tissue** |
| GSE100522 | JQ638673-JQ638688 | Influenza A virus (A/chicken/Jiangsu/k0402/2010(H5N1)) | 1144736 | ssRNA viruses | Orthomyxoviridae | linear | Mus musculus | Lung |
| GSE100576 | JN555585.1 | Human alphaherpesvirus 1 | 10298 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | HFF cells |
| GSE100684 | NC\_009333.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | Lesion tissue |
| GSE101575 | AB267090.1 | Hepatitis B virus ayw/Japan/Ehime 22-HS/2005 | 569626 | Retro-transcribing viruses | Hepadnaviridae | circular | Homo sapiens | HepaRG cells |
| GSE101760 | GCF\_000865725.1 | Influenza A virus (A/Puerto Rico/8/1934(H1N1)) | 211044 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | A549 cells |
| GSE101960 | JQ673480.1 | Human alphaherpesvirus 1 | 10298 | dsDNA viruses | Herpesviridae | linear | Chlorocebus aethiops | Vero cells |
| GSE102392 | JQ923422.1 | Primate bocaparvovirus 1 | 1511871 | ssDNA viruses | Parvoviridae | linear | Homo sapiens | Human airway epithelium (HAE)-ALI |
| GSE103763 | NC\_001806.2 | Human alphaherpesvirus 1 | 10298 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | KMB17 cells |
| GSE103825 | KR013754.3 | Zaire ebolavirus | 186538 | ssRNA viruses | Filoviridae | linear | Macaca fascicularis | Whole Blood |
| GSE104118 | NC\_014326.1 | Mus musculus papillomavirus type 1 | 763552 | dsDNA viruses | Papillomaviridae | circular | Mus musculus | Muzzle |
| GSE115620 | KP096420.1 | Zaire ebolavirus | 186538 | ssRNA viruses | Filoviridae | linear | Mustela putorius furo | Whole Blood |
| GSE116675 | KC207813.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | B-cell lymphoma |
| GSE117710 | MH670587.1 | Mouse kidney parvovirus | 2316143 | ssDNA viruses | unclassified Parvoviridae | linear | Mus musculus | Kidneys |
| GSE117798 | KC207814.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | BC1 cells;Post-transplant lymphoproliferative disease (PTLD) |
| HQ404500.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | BC1 cells;BCBL1 cells |
| GSE117828 | CY121687.1 | Influenza A virus (A/California/07/2009(H1N1)) | 641809 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | Primary monocytes |
| KJ942683.1 | Influenza A virus (A/Victoria/361/2011(H3N2)) | 1268360 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | Primary monocytes |
| GSE118305 | KU955593.1 | Zika virus | 64320 | ssRNA viruses | Flaviviridae | linear | Homo sapiens | Monocyte derived macrophage |
| GSE119608 | NC\_009333.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | MC116 cells;HUVEC cells |
| GSE120891 | AC\_000008.1 | Human adenovirus 5 | 28285 | dsDNA viruses | Adenoviridae | linear | Homo sapiens | MRC-5 cells |
| GU734771.1 | Human alphaherpesvirus 1 | 10298 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | MRC-5 cells |
| AC146907.1 | Human betaherpesvirus 5 | 10359 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | MRC-5 cells |
| FJ527563.1 | Human betaherpesvirus 5 | 10359 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | MRC-5 cells |
| KF297339.1 | Human betaherpesvirus 5 | 10359 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | HFF cells |
| GSE121725 | KF234407.1 | Orf virus | 10258 | dsDNA viruses | Poxviridae | linear | Capra hircus | Primary goat skin fibroblasts |
| GSE121756 | NC\_009333.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | HUVEC cells |
| GSE124711 | NC\_009333.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | B-cell lymphoma |
| NC\_006146 | Macacine herpesvirus 4 (rLCV\_inverted) | 45455 | dsDNA viruses | Herpesviridae | circular | Macaca mulatta | lymphoma;lymphoma (adjacent to jejunum) |
| U97553.2 | Murine herpesvirus 68 | 33708 | dsDNA viruses | Herpesviridae | linear | Mus musculus | Fibroblast |
| GSE125182 | NC\_001547.1 | Sindbis virus | 11034 | ssRNA viruses | Togaviridae | linear | Homo sapiens | HEK293 cells |
| GSE45453 | AJ507799.2 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | SNU-719 cells |
| GSE52490 | KC207813.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | Akata cells |
| GSE53993 | K02013.1 | Human immunodeficiency virus 1 | 11676 | Retro-transcribing viruses | Retroviridae | linear | Homo sapiens | SUPT1 cells |
| GSE54583 | AC\_000007.1 | Human adenovirus 2 | 10515 | dsDNA viruses | Adenoviridae | linear | Homo sapiens | IMR-90 cells |
| GSE61517 | KJ609218.1 | Influenza A virus (A/Brisbane/10/2007(H3N2)) | 476294 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | BEAS-2B cells |
| KJ609203.1 | Influenza A virus (A/Perth/16/2009(H3N2)) | 654811 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | BEAS-2B cells |
| KM879361.1 | Influenza A virus (A/Udorn/307/1972(H3N2)) | 381517 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | BEAS-2B cells |
| GSE62340 | NC\_009333.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | Human CD14+ cells |
| GSE62341 | NC\_009333.1 | Human gammaherpesvirus 8 | 37296 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | Peripheral blood mononuclear cells (PBMCs) |
| GSE68122 | KC207813.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | Akata cells |
| GSE69205 | AF081485.1 | Coxsackievirus B2 | 82639 | ssRNA viruses | Picornaviridae | linear | Homo sapiens | RD cells |
| GSE74215 | NC\_001806.2 | Human alphaherpesvirus 1 | 10298 | dsDNA viruses | Herpesviridae | linear | Mus musculus | Large intestinal musculara |
| GSE75776 | AJ507799.2 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | EBV-infected primary B cells |
| GSE79293 | KC207813.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | Akata cells |
| GSE81802 | KF373730.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | CD19+ B cells |
| NC\_007605.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | CD19+ B cells |
| GSE85474 | GCF\_000865725.1 | Influenza A virus (A/Puerto Rico/8/1934(H1N1)) | 211044 | ssRNA viruses | Orthomyxoviridae | linear | Homo sapiens | A549 cells |
| GSE85493 | AB097933.1 | Human alphaherpesvirus 3 | 10335 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | MeWo cells |
| GSE93555 | AF316139.1 | Macaca mulatta polyomavirus 1 | 1891767 | dsDNA viruses | Polyomaviridae | circular | Chlorocebus aethiops | Vero cells |
| GSE94821 | DQ285629.1 | Murine norovirus 1 | 223997 | ssRNA viruses | Caliciviridae | linear | Mus musculus | RAW264.7 cells |
| GSE94843 | DQ285629.1 | Murine norovirus 1 | 223997 | ssRNA viruses | Caliciviridae | linear | Mus musculus | RAW264.7 cells |
| GSE96689 | NC\_007605.1 | Human gammaherpesvirus 4 | 10376 | dsDNA viruses | Herpesviridae | circular | Homo sapiens | GM12878 [EBV+ B cell];MutuI [EBV+ Burkitt lymphoma] |
| GSE99454 | EF999921.1 | Human betaherpesvirus 5 | 10359 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | ARPE-19 cells;MRC-5 cells |
| GSE99463 | KR013754.3 | Zaire ebolavirus | 186538 | ssRNA viruses | Filoviridae | linear | Macaca fascicularis | Whole Blood |
| PRJEB23238 | NC\_001806.2 | Human alphaherpesvirus 1 | 10298 | dsDNA viruses | Herpesviridae | linear | Homo sapiens | Human trigeminal ganglia |
| PRJEB9526 | KJ717942.1 | Suid alphaherpesvirus 1 | 10345 | dsDNA viruses | Herpesviridae | linear | porcine | Immortalized porcine kidney-15 cells |
| PRJNA412109 | KJ660347.2 | Zaire ebolavirus | 186538 | ssRNA viruses | Filoviridae | linear | macaques | Monocytes |