

Table S1: Virus-host protein-protein interaction networks for human viruses in the STRING Viruses database, ranked by the number of interactions. The latter 25 (highlighted) are those virus-host protein-protein interaction networks considered in our study

NCBI Tax Id	Family	Genus	Species	Proteins		
				Viral	Host	Inter
10276	Poxviridae	Suipoxvirus	Swinepox virus	1	1	1
10366	Herpesviridae	Muromegalovirus	Murid betaherpesvirus 1	1	1	1
10381	Herpesviridae	Rhadinovirus	Saimiriine gammaherpesvirus 2	1	1	1
10506	Phycodnaviridae	Chlorovirus	Paramecium bursaria Chlorella virus 1	1	1	1
10561	Papillomaviridae	Xipapillomavirus	Xipapillomavirus 1	1	1	1
10567	Papillomaviridae	Iotapapillomavirus	Iotapapillomavirus 1	1	1	1
10658	Tectiviridae	Alphatectivirus	Pseudomonas virus PRD1	1	1	1
10677	Myoviridae	Muvirus	Escherichia virus Mu	1	1	1
10754	Podoviridae	Lederbergvirus	Salmonella virus P22	1	1	1
10840	Geminiviridae	Curtovirus	Beet curly top virus	1	1	1
10991	Reoviridae	Phytoreovirus	Rice dwarf virus	1	1	1
11599	Hantaviridae	Orthohantavirus	Hantaan orthohantavirus	1	1	1
11613	Tospoviridae	Orthotospovirus	Tomato spotted wilt tospovirus	1	1	1
11631	Arenaviridae	Mammarenavirus	Tacaribe mammarenavirus	1	1	1
11886	Retroviridae	Alpharetrovirus	Rous sarcoma virus	1	1	1
11976	Caliciviridae	Lagovirus	Rabbit hemorrhagic disease virus	1	1	1
12657	Herpesviridae	Percavirus	Equid gammaherpesvirus 2	1	1	1
129951	Adenoviridae	Mastadenovirus	Human mastadenovirus C	1	1	1
348604	Myoviridae	Tequatrovirus	Enterobacteria phage T4 sensu lato	1	1	1
36772	Nanoviridae	Nanovirus	Subterranean clover stunt virus	1	1	1
37128	Virgaviridae	Pomovirus	Potato mop-top virus	1	1	1
47740	Tombusviridae	Umbravirus	Groundnut rosette virus	1	1	1
694005	Coronaviridae	Betacoronavirus	Murine coronavirus	1	1	1
74501	Tobaniviridae	Torovirus	Bovine torovirus	1	1	1
10855	Microviridae	Spiromicrovirus	Spiroplasma virus SpV4	1	2	2
11588	Phenuiviridae	Phlebovirus	Rift Valley fever phlebovirus	1	2	2
11723	Retroviridae	Lentivirus	Simian immunodeficiency virus	1	2	2
11786	Retroviridae	Gammaretrovirus	Murine leukemia virus	1	2	2
1511891	Parvoviridae	Dependoparvovirus	Adeno-associated dependoparvovirus A	2	1	2
220340	Geminiviridae	Begomovirus	Bean golden yellow mosaic virus	2	2	2
36427	Reoviridae	Rotavirus	Rotavirus C	1	2	2
40051	Reoviridae	Orbivirus	Bluetongue virus	2	2	2
11176	Paramyxoviridae	Avulavirus	Avian avulavirus 1	2	3	3
12110	Picornaviridae	Aphthovirus	Foot-and-mouth disease virus	2	3	3
12216	Potyviridae	Potyvirus	Potato virus Y	1	3	3
12455	Bornaviridae		Borna disease virus	2	2	3
39720	Retroviridae	Epsilonretrovirus	Walleye dermal sarcoma virus	2	3	3
10273	Poxviridae	Leporipoxvirus	Myxoma virus	2	4	4

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NCBI Tax Id	Family	Genus	Species	Proteins		
				Viral	Host	Inter
10390	Herpesviridae	Mardivirus	Gallid alphaherpesvirus 2	2	4	4
11041	Matonaviridae	Rubivirus	Rubella virus	2	4	4
11191	Paramyxoviridae	Respirovirus	Murine respirovirus	3	4	4
10623	Papillomaviridae	Kappapapillomavirus	Kappapapillomavirus 2	3	5	5
10678	Myoviridae	Punavirus	Escherichia virus P1	3	5	5
10710	Siphoviridae	Lambdavirus	Escherichia virus Lambda	4	5	5
11047	Arteriviridae	Alphaarterivirus	Alphaarterivirus equid	4	4	5
11099	Flaviviridae	Pestivirus	Bovine viral diarrhea virus 1	1	5	5
1511908	Parvoviridae	Protoparvovirus	Rodent protoparvovirus 1	2	5	5
10497	Asfarviridae	Asfivirus	African swine fever virus	4	6	6
11292	Rhabdoviridae	Lyssavirus	Rabies lyssavirus	3	3	7
12475		Deltavirus	Hepatitis delta virus	1	7	7
28875	Reoviridae	Rotavirus	Rotavirus A	4	7	7
1239565	Astroviridae	Mamastrovirus	Mamastrovirus 1	1	8	8
12461	Hepeviridae	Orthohepevirus	Orthohepevirus A	1	8	8
12618	Anelloviridae	Gyrovirus	Chicken anemia virus	1	8	8
1511900	Parvoviridae	Erythroparvovirus	Primate erythroparvovirus 1	1	8	8
12305	Bromoviridae	Cucumovirus	Cucumber mosaic virus	1	10	10
10279	Poxviridae	Molluscipoxvirus	Molluscum contagiosum virus	8	11	13
694014	Coronaviridae	Gammacoronavirus	Avian coronavirus	6	13	13
10633	Polyomaviridae	Betapolyomavirus	Macaca mulatta polyomavirus 1	2	14	14
95342	Caliciviridae	Sapovirus	Sapporo virus	2	14	14
11033	Togaviridae	Alphavirus	Semliki Forest virus	3	15	15
333926	Papillomaviridae	Gammapapillomavirus	Gammapapillomavirus 1	3	15	15
334205	Papillomaviridae	Nupapillomavirus	Nupapillomavirus 1	3	15	15
37124	Togaviridae	Alphavirus	Chikungunya virus	3	15	15
11983	Caliciviridae	Norovirus	Norwalk virus	4	17	17
337051	Papillomaviridae	Betapapillomavirus	Betapapillomavirus 1	3	17	17
11034	Togaviridae	Alphavirus	Sindbis virus	4	17	18
10258	Poxviridae	Parapoxvirus	Orf virus	9	17	19
10760	Podoviridae	Teseptimavirus	Escherichia virus T7	4	18	19
337042	Papillomaviridae	Alphapapillomavirus	Alphapapillomavirus 7	5	22	22
99182	Retroviridae	Gammaretrovirus	Murine leukemia-related retroviruses	7	19	24
11620	Arenaviridae	Mammarenavirus	Lassa mammarenavirus	1	27	27
1330524	Picornaviridae	Salivirus	Salivirus A	2	32	32
195054	Picornaviridae	Parechovirus	Parechovirus A	2	32	32
10245	Poxviridae	Orthopoxvirus	Vaccinia virus	24	30	33
11623	Arenaviridae	Mammarenavirus	Lymphocytic choriomeningitis mammarenavirus	1	35	35
38804	Poxviridae	Yatapoxvirus	Yaba monkey tumor virus	11	34	37
11089	Flaviviridae	Flavivirus	Yellow fever virus	3	41	41
12104	Picornaviridae	Cardiovirus	Cardiovirus A	6	39	43
11053	Flaviviridae	Flavivirus	Dengue virus	4	46	46
11060	Flaviviridae	Flavivirus	Dengue virus	4	46	46
11069	Flaviviridae	Flavivirus	Dengue virus	4	46	46
11072	Flaviviridae	Flavivirus	Japanese encephalitis virus	4	46	46
12092	Picornaviridae	Hepatovirus	Hepatovirus A	5	42	47

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NCBI Tax Id	Family	Genus	Species	Proteins		
				Viral	Host	Inter
147711	Picornaviridae	Enterovirus	Rhinovirus A	5	42	47
11552	Orthomyxoviridae	Gammainfluenzavirus	Influenza C virus	2	50	50
334203	Papillomaviridae	Mupapillomavirus	Mupapillomavirus 1	4	45	50
11070	Flaviviridae	Flavivirus	Dengue virus	5	51	51
11082	Flaviviridae	Flavivirus	West Nile virus	7	51	52
10255	Poxviridae	Orthopoxvirus	Variola virus	23	46	55
10407	Hepadnaviridae	Orthohepadnavirus	Hepatitis B virus	4	54	60
138950	Picornaviridae	Enterovirus	Enterovirus C	7	53	62
11520	Orthomyxoviridae	Betainfluenzavirus	Influenza B virus	5	56	63
11269	Filoviridae	Marburgvirus	Marburg marburgvirus	4	65	65
186538	Filoviridae	Ebolavirus	Zaire ebolavirus	5	66	67
194443	Retroviridae	Deltaretrovirus	Primate T-lymphotropic virus 3	2	54	71
194441	Retroviridae	Deltaretrovirus	Primate T-lymphotropic virus 2	2	57	74
11137	Coronaviridae	Alphacoronavirus	Human coronavirus 229E	5	76	76
194440	Retroviridae	Deltaretrovirus	Primate T-lymphotropic virus 1	5	67	84
694009	Coronaviridae	Betacoronavirus	SARS-related coronavirus	12	87	87
337041	Papillomaviridae	Alphapapillomavirus	Alphapapillomavirus 9	5	80	91
11320	Orthomyxoviridae	Alphainfluenzavirus	Influenza A virus	11	120	144
11103	Flaviviridae	Hepacivirus	Hepacivirus C	8	146	197
162145	Pneumoviridae	Metapneumovirus	Human metapneumovirus	5	214	215
11250	Pneumoviridae	Orthopneumovirus	Human orthopneumovirus	8	222	225
32604	Herpesviridae	Roseolovirus	Human betaherpesvirus 6B	17	201	227
32603	Herpesviridae	Roseolovirus	Human betaherpesvirus 6A	18	201	227
11161	Paramyxoviridae	Rubulavirus	Mumps rubulavirus	4	239	249
63330	Paramyxoviridae	Henipavirus	Hendra henipavirus	6	247	285
11234	Paramyxoviridae	Morbillivirus	Measles morbillivirus	8	265	289
11676	Retroviridae	Lentivirus	Human immunodeficiency virus 1	10	279	301
11709	Retroviridae	Lentivirus	Human immunodeficiency virus 2	5	196	315
37296	Herpesviridae	Rhadinovirus	Human gammaherpesvirus 8	36	300	342
10359	Herpesviridae	Cytomegalovirus	Human betaherpesvirus 5	40	313	380
10376	Herpesviridae	Lymphocryptovirus	Human gammaherpesvirus 4	35	451	547
10335	Herpesviridae	Varicellovirus	Human alphaherpesvirus 3	27	557	665
10310	Herpesviridae	Simplexvirus	Human alphaherpesvirus 2	34	607	765
10298	Herpesviridae	Simplexvirus	Human alphaherpesvirus 1	45	690	957

Table S2: Marburg marburgvirus (NCBI TaxId 11269) viral proteins

STRING Viruses	UniProtKB	Protein name
L_MABVM	P31352	RNA-directed RNA polymerase L
VP24_MABVM	P35256	Membrane-associated protein VP24
VP35_MABVM	P35259	Polymerase cofactor VP35
VP40_MABVM	P35260	Matrix protein VP40

Table S3: Zaire ebolavirus (NCBI TaxId 186538) viral proteins

STRING Viruses	UniProtKB	Protein name
L_EBOZM	Q05318	RNA-directed RNA polymerase L
VP24_EBOZM	Q05322	Membrane-associated protein VP24
VP30_EBOZM	Q05323	Hexameric zinc-finger protein VP30
VP35_EBOZM	Q05127	Polymerase cofactor VP35
VP40_EBOZM	Q05128	Matrix protein VP40

Table S4: Primate T-lymphotropic virus 3 (NCBI TaxId 194443)
viral proteins

STRING Viruses	UniProtKB	Protein name
PRO_0000259780	Q0R5R4	Gag polyprotein
TAX_HTL32	Q0R5R1	Protein Tax-3

Table S5: Primate T-lymphotropic virus 2 (NCBI TaxId 194441)
viral proteins

STRING Viruses	UniProtKB	Protein name
PRO_0000259947	P03363	Gag-Pro-Pol polyprotein
TAX_HTLV2	P03410	Protein Tax-2

Table S6: Human coronavirus 229E (NCBI TaxId 11137) viral proteins

STRING Viruses	UniProtKB	Protein name
NCAP_CVH22	P15130	Nucleoprotein
PRO_0000037295	P0C6X1	Replicase polyprotein 1ab
PRO_0000037297	P0C6X1	Replicase polyprotein 1ab
PRO_0000037299	P0C6X1	Replicase polyprotein 1ab
SPIKE_CVH22	P15423	Spike glycoprotein

Table S7: Primate T-lymphotropic virus 1 (NCBI TaxId 194440)
viral proteins

STRING Viruses	UniProtKB	Protein name
HBZ_HTL1C	P15130	Nucleoprotein
P12I_HTL1C	P0CK16	Accessory protein p12I
P30II_HTL1C	P0CK17	Accessory protein p30II
PRO_0000259942	P14078	Gag-Pro-Pol polyprotein
TAX_HTL1C	P14079	Protein Tax-1

Table S8: SARS-related coronavirus (NCBI TaxId 694009) viral proteins

STRING Viruses	UniProtKB	Protein name
AP3A_CVHSA	P59632	Protein 3a
NCAP_CVHSA	P59595	Nucleoprotein
NS7A_CVHSA	P59635	Protein 7a
ORF9B_CVHSA	P59636	Protein 9b
PRO_0000037309	P0C6X7	Replicase polyprotein 1ab
PRO_0000037310	P0C6X7	Replicase polyprotein 1ab
PRO_0000037311	P0C6X7	Replicase polyprotein 1ab
PRO_0000037312	P0C6X7	Replicase polyprotein 1ab
PRO_0000037314	P0C6X7	Replicase polyprotein 1ab
PRO_0000037315	P0C6X7	Replicase polyprotein 1ab
SPIKE_CVHSA	P59594	Spike glycoprotein
VME1_CVHSA	P59596	Membrane protein

Table S9: Alphapapillomavirus 9 (NCBI TaxId 337041) viral proteins

STRING Viruses	UniProtKB	Protein name
VE1_HP16	P03114	Replication protein E1
VE2_HP16	P03120	Regulatory protein E2
VE5_HP16	P06927	Probable protein E5
VE6_HP16	P03126	Protein E6
VE7_HP16	P03129	Protein E7

Table S10: Influenza A virus (NCBI TaxId 11320) viral proteins

STRING Viruses	UniProtKB	Protein name
HEMA_I34A1	P03452	Hemagglutinin
M1_I34A1	P03485	Matrix protein 1
M2_I34A1	P06821	Matrix protein 2
NCAP_I34A1	P03466	Nucleoprotein
NEP_I34A1	P03508	Nuclear export protein
NRAM_I34A1	P03468	Neuraminidase
NS1_I34A1	P03496	Non-structural protein 1
PA_I34A1	P03433	Polymerase acidic protein
PB1F2_I34A1	P0C0U1	Protein PB1-F2
PB2_I34A1	P03428	Polymerase basic protein 2
RDRP_I34A1	P03431	RNA-directed RNA polymerase catalytic subunit

Table S11: Hepacivirus C (NCBI TaxId 11103) viral proteins

STRING Viruses	UniProtKB	Protein name
F_HCVH	P0C045	F protein
PRO_0000037567	P27958	Genome polyprotein
PRO_0000037570	P27958	Genome polyprotein
PRO_0000037573	P27958	Genome polyprotein
PRO_0000037574	P27958	Genome polyprotein
PRO_0000037575	P27958	Genome polyprotein
PRO_0000037576	P27958	Genome polyprotein
PRO_0000037577	P27958	Genome polyprotein

Table S12: Human metapneumovirus (NCBI TaxId 162145) viral proteins

STRING Viruses	UniProtKB	Protein name
FUS_HMPVC	Q6WB98	Fusion glycoprotein F0
M21_HMPVC	Q6WB97	Matrix M2-1
M22_HMPVC	Q6WB96	Matrix protein M2-2
MTRX_HMPVC	Q6WB99	Matrix protein
NCAP_HMPVC	Q6WBA1	Nucleoprotein

Table S13: Human orthopneumovirus (NCBI TaxId 11250) viral proteins

STRING Viruses	UniProtKB	Protein name
FUS_HRSVB	036634	Fusion glycoprotein F0
GLYC_HRSVB	036633	Major surface glycoprotein G
M21_HRSVB	042050	Matrix M2-1
MATRX_HRSVB	042049	Matrix protein
NCAP_HRSVB	042053	Nucleoprotein
NS1_HRSVB	042083	Non-structural protein 1
NS2_HRSVB	042038	Non-structural protein 2
PHOSP_HRSVB	042062	Phosphoprotein

Table S14: Human betaherpesvirus 6B (NCBI TaxId 32604) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_HHV6Z	P52448	Alkaline nuclease
DNBI_HHV6Z	P52538	Major DNA-binding protein
DPOL_HHV6Z	Q9QJ32	DNA polymerase catalytic subunit
GB_HHV6Z	P36320	Envelope glycoprotein B
GCVK_HHV6Z	P52446	Probable ganciclovir kinase
GH_HHV6Z	P52543	Envelope glycoprotein H
GL_HHV6Z	P52526	Envelope glycoprotein L
ICP27_HHV6Z	P52539	mRNA export factor ICP27 homolog
IE2_HHV6Z	Q9QJ16	Immediate-early protein 2
PRIM_HHV6Z	P52540	DNA primase
U20_HHV6Z	Q9QJ46	Glycoprotein U20
UL24_HHV6Z	P52545	Protein UL24 homolog
UL31_HHV6Z	Q9WT27	Nuclear egress protein 1
UL34_HHV6Z	Q9QJ35	Nuclear egress protein 2
VGCR_HHV6Z	Q9QJ51	G-protein coupled receptor
VU51_HHV6Z	P52542	G-protein coupled receptor homolog U51
VU84_HHV6Z	P52533	Protein U84

Table S15: Human betaherpesvirus 6A (NCBI TaxId 32603) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_HHV6U	P24447	Alkaline nuclease
DNBI_HHV6U	P52338	Major DNA-binding protein
DPOL_HHV6U	P28857	DNA polymerase catalytic subunit
GB_HHV6U	P28864	Envelope glycoprotein B
GCVK_HHV6U	P24446	Probable ganciclovir kinase
GH_HHV6U	P68324	Envelope glycoprotein H
GL_HHV6U	P52508	Envelope glycoprotein L
ICP27_HHV6U	P52354	mRNA export factor ICP27 homolog
IE2_HHV6U	Q77Z83	Immediate-early protein 2
PRIM_HHV6U	P52467	DNA primase
U20_HHV6U	Q69555	Glycoprotein U20
U95_HHV6U	Q89882	Uncharacterized protein U95
UL24_HHV6U	Q06092	Protein UL24 homolog
UL31_HHV6U	P28865	Nuclear egress protein 1
UL33_HHV6U	P52380	G-protein coupled receptor homolog U12
UL34_HHV6U	P52465	Nuclear egress protein 2
VU51_HHV6U	P52382	G-protein coupled receptor homolog U51
VU84_HHV6U	P52532	Protein U84

Table S16: Mumps rubulavirus (NCBI TaxId 11161) viral proteins

STRING Viruses	UniProtKB	Protein name
FUS_MUMPM	P11236	Fusion glycoprotein F0
HN_MUMPM	P11235	Hemagglutinin-neuraminidase
L_MUMPM	P30929	RNA-directed RNA polymerase L
MATRIX_MUMPM	Q9JG20	Matrix protein

Table S17: Hendra henipavirus (NCBI TaxId 63330) viral proteins

STRING Viruses	UniProtKB	Protein name
FUS_HENDH	089342	Fusion glycoprotein F0
GLYCP_HENDH	089343	Glycoprotein G
L_HENDH	089344	RNA-directed RNA polymerase L
MATRX_HENDH	089341	Matrix protein
V_HENDH	055777	Non-structural protein V
W_HENDH	P0C1C6	Protein W

Table S18: Measles morbillivirus (NCBI TaxId 11234) viral proteins

STRING Viruses	UniProtKB	Protein name
C_MEASC	Q9YZN9	Protein C
FUS_MEASC	Q786F3	Fusion glycoprotein F0
HEMA_MEASC	Q786F2	Hemagglutinin glycoprotein
L_MEASC	Q9WMB3	RNA-directed RNA polymerase L
MATRIX_MEASC	Q9W850	Matrix protein
NCAP_MEASC	Q9WMB5	Nucleoprotein
PHOSP_MEASC	Q9WMB4	Phosphoprotein
V_MEASC	P0C774	Non-structural protein V

Table S19: Human immunodeficiency virus 1 (NCBI TaxId 11676)
viral proteins

STRING Viruses	UniProtKB	Protein name
NEF_HV1H2	P04601	Protein Nef
PRO_0000038427	P04578	Envelope glycoprotein gp160
PRO_0000038428	P04578	Envelope glycoprotein gp160
PRO_0000038594	P04591	Gag polyprotein
PRO_0000239240	P04578	Envelope glycoprotein gp160
REV_HV1H2	P04618	Protein Rev
TAT_HV1H2	P04608	Protein Tat
VIF_HV1H2	P69723	Virion infectivity factor
VPR_HV1H2	P69726	Protein Vpr
VPU_HV1H2	P05919	Protein Vpu

Table S20: Human immunodeficiency virus 2 (NCBI TaxId 11709)
viral proteins

STRING Viruses	UniProtKB	Protein name
NEF_HV2BE	P18092	Protein Nef
PRO_0000042461	P18096	Gag-Pol polyprotein
VIF_HV2BE	P18097	Virion infectivity factor
VPR_HV2BE	P18100	Protein Vpr
VPX_HV2BE	P18099	Protein Vpx

Table S21: Human gammaherpesvirus 8 (NCBI TaxId 37296) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_HHV8P	Q2HR95	Shutoff alkaline exonuclease
DNBI_HHV8P	Q2HRD3	Major DNA-binding protein
DPOL_HHV8P	Q2HRD0	DNA polymerase catalytic subunit
GB_HHV8P	F5HB81	Envelope glycoprotein B
GH_HHV8P	F5HAK9	Envelope glycoprotein H
GL_HHV8P	F5HDB7	Envelope glycoprotein L
GM_HHV8P	F5HDD0	Envelope glycoprotein M
ICP27_HHV8P	Q2HR75	mRNA export factor ICP27 homolog
K1_HHV8P	Q2HRD5	Protein K1
K42_HHV8P	F5HF36	Protein K4.2
K7_HHV8P	F5HDA4	Protein K7
KBZIP_HHV8P	Q2HR82	E3 SUMO-protein ligase K-bZIP
MIR2_HHV8P	P90489	E3 ubiquitin-protein ligase MIR2
ORF36_HHV8P	F5HGH5	Viral protein kinase
ORF45_HHV8P	F5HDE4	Protein ORF45
ORF49_HHV8P	Q2HR83	Protein ORF49
ORF4_HHV8P	Q2HRD4	Complement control protein
ORF50_HHV8P	F5HCV3	Putative transcription activator ORF50
ORF73_HHV8P	Q9QR71	Protein LANA1
ORF75_HHV8P	Q9QR70	Protein ORF75
OX2V_HHV8P	P0C788	OX-2 membrane glycoprotein homolog
PAP_HHV8P	F5HID2	DNA polymerase processivity factor
PRIM_HHV8P	F5HIN0	DNA primase
RIR1_HHV8P	Q2HR67	Ribonucleoside-diphosphate reductase large subunit
UL24_HHV8P	Q2HRB2	Protein UL24 homolog
UL31_HHV8P	F5H982	Nuclear egress protein 1
UL34_HHV8P	F5HA27	Nuclear egress protein 2
UL37_HHV8P	F5HEU7	Inner tegument protein
VCYCL_HHV8P	Q77Q36	viral cyclin homolog
VFLIP_HHV8P	F5HEZ4	Viral FLICE protein
VGPCR_HHV8P	Q98146	viral G-protein coupled receptor
VIL6_HHV8P	Q2HRC7	Viral interleukin-6 homolog
VIRF1_HHV8P	F5HF68	VIRF-1
VIRF2_HHV8P	Q2HR71	Viral IRF2-like protein
VIRF3_HHV8P	F5HIC6	Viral IRF3-like protein
VIRF4_HHV8P	Q2HR73	Viral IRF4-like protein

Table S22: Human betaherpesvirus 5 (NCBI TaxId 10359) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_HCMVM	F5HF49	Alkaline nuclease
DNBI_HCMVM	F5HDQ6	Major DNA-binding protein
DPOL_HCMVM	Q6SW77	DNA polymerase catalytic subunit
GB_HCMVM	F5HB53	Envelope glycoprotein B
GH_HCMVM	Q6SW67	Envelope glycoprotein H
GL_HCMVM	F5HCH8	Envelope glycoprotein L
GM_HCMVM	Q6SW43	Envelope glycoprotein M
HELI_HCMVM	F5HEN8	DNA replication helicase
ICP27_HCMVM	Q6SW73	mRNA export factor ICP27 homolog
IL10H_HCMVM	F5HC71	Viral interleukin-10 homolog
IRS1_HCMVM	Q6SW04	Protein IRS1
PP150_HCMVM	Q6SW99	Tegument protein pp150
PP65_HCMVM	Q6SW59	65 kDa phosphoprotein
PP71_HCMVM	F5HBC6	Protein pp71
PRIM_HCMVM	F5HG51	DNA primase
TRS1_HCMVM	Q6SVX2	Protein TRS1
UL117_HCMVM	F5HFA5	Protein UL117
UL142_HCMVM	F5HHH2	Membrane glycoprotein UL142
UL144_HCMVM	F5HAM0	Membrane glycoprotein UL144
UL16P_HCMVM	F5HG68	Protein UL16
UL18_HCMVM	F5HFB4	Membrane glycoprotein UL18
UL21A_HCMVM	F5HH39	Uncharacterized protein UL21A
UL33_HCMVM	Q6SW98	G-protein coupled receptor homolog UL33
UL38_HCMVM	F5HG98	Apoptosis inhibitor UL38
UL40_HCMVM	Q6SW92	Protein UL40
UL50_HCMVM	Q6SW81	Nuclear egress protein 2
UL52_HCMVM	Q6SW79	Packaging protein UL32 homolog
UL53_HCMVM	F5HFZ4	Nuclear egress protein 1
UL76_HCMVM	Q6SW66	Protein UL76
UL84_HCMVM	F5HB40	Protein UL84
UL97_HCMVM	Q6SW46	Serine/threonine protein kinase UL97
UNG_HCMVM	F5HI85	Uracil-DNA glycosylase
US03_HCMVM	F5HEU0	Membrane glycoprotein US3
US10_HCMVM	F5HFJ7	Membrane glycoprotein US10
US11_HCMVM	Q6SVZ5	Membrane glycoprotein US11
US27_HCMVM	F5HDK1	Envelope glycoprotein US27
US28_HCMVM	F5HF62	Envelope protein US28
VICA_HCMVM	F5HAY6	Viral inhibitor of caspase-8-induced apoptosis
VIE1_HCMVM	F5HCM1	55 kDa immediate-early protein 1
VIE2_HCMVM	Q6SW29	Viral transcription factor IE2

Table S23: Human gammaherpesvirus 4 (NCBI TaxId 10376) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_EBVB9	P03217	Shutoff alkaline exonuclease
BARF1_EBVB9	P03228	Secreted protein BARF1
BLRF2_EBVB9	P03197	Tegument protein BLRF2
BNLF2A_EBVB9	P0C739	Protein BNLF2a
BRRF1_EBVB9	P03207	Transcriptional activator BRRF1
BZLF1_EBVB9	P03206	Trans-activator protein BZLF1
DNBI_EBVB9	P03227	Major DNA-binding protein
DPOL_EBVB9	P03198	DNA polymerase catalytic subunit
EAD_EBVB9	P03191	DNA polymerase processivity factor BMRF1
EAR_EBVB9	P03182	Apoptosis regulator BHRF1
EBNA1_EBVB9	P03211	Epstein-Barr nuclear antigen 1
EBNA2_EBVB9	P12978	Epstein-Barr nuclear antigen 2
EBNA3_EBVB9	P12977	Epstein-Barr nuclear antigen 3
EBNA4_EBVB9	P03203	Epstein-Barr nuclear antigen 4
EBNA5_EBVB9	Q8AZK7	Epstein-Barr nuclear antigen leader protein
EBNA6_EBVB9	P03204	Epstein-Barr nuclear antigen 6
GB_EBVB9	P03188	Envelope glycoprotein B
GH_EBVB9	P03231	Envelope glycoprotein H
GL_EBVB9	P03212	Envelope glycoprotein L
GM_EBVB9	P03215	Envelope glycoprotein M
GP350_EBVB9	P03200	Envelope glycoprotein GP350
ICP27_EBVB9	Q04360	mRNA export factor ICP27 homolog
IL10H_EBVB9	P03180	Viral interleukin-10 homolog
KR2_EBVB9	P13288	Serine/threonine-protein kinase BGLF4
LMP1_EBVB9	P03230	Latent membrane protein 1
LMP2_EBVB9	P13285	Latent membrane protein 2
LTP_EBVB9	P03186	Large tegument protein deneddylase
MTP_EBVB9	P03179	Major tegument protein
PRIM_EBVB9	P03193	DNA primase
RIR1_EBVB9	P03190	Ribonucleoside-diphosphate reductase large subunit
RPMS1_EBVB9	Q9Q2P0	Uncharacterized protein RPMS1
RTA_EBVB9	P03209	Replication and transcription activator
UL24_EBVB9	P03232	Protein UL24 homolog
UL31_EBVB9	P0CK47	Nuclear egress protein 1
UL34_EBVB9	P03185	Nuclear egress protein 2

Table S24: Human alphaherpesvirus 3 (NCBI TaxId 10335) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_VZVD	P09253	Alkaline nuclease
DNBI_VZVD	P09246	Major DNA-binding protein
DPOL_VZVD	P09252	DNA polymerase catalytic subunit
GB_VZVD	P09257	Envelope glycoprotein B
GC_VZVD	P09256	Envelope glycoprotein C
GE_VZVD	P09259	Envelope glycoprotein E
GH_VZVD	P09260	Envelope glycoprotein H
GI_VZVD	P09258	Envelope glycoprotein I
GK_VZVD	P09261	Envelope glycoprotein K
GL_VZVD	P09308	Envelope glycoprotein L
GM_VZVD	P09298	Envelope glycoprotein M
ICP22_VZVD	P09255	Transcriptional regulator ICP22 homolog
ICP27_VZVD	P09269	mRNA export factor ICP27 homolog
ICP4_VZVD	P09310	Major viral transcription factor ICP4 homolog
NP04_VZVD	P09304	Nuclear protein UL4 homolog
ORF1_VZVD	P09266	Structural protein 1
ORF57_VZVD	P09305	Uncharacterized protein 57
PRIM_VZVD	P09270	DNA primase
RIR1_VZVD	P09248	Ribonucleoside-diphosphate reductase large subunit
TEG5_VZVD	P09263	Tegument protein UL47 homolog
UL13_VZVD	P09296	Serine/threonine-protein kinase UL13 homolog
UL24_VZVD	P09288	Protein UL24 homolog
UL31_VZVD	P09283	Nuclear egress protein 1
UL34_VZVD	P09280	Nuclear egress protein 2
US03_VZVD	P09251	Serine/threonine-protein kinase US3 homolog
VP16_VZVD	P09265	Tegument protein VP16 homolog
VP22_VZVD	P09272	Tegument protein VP22

Table S25: Human alphaherpesvirus 2 (NCBI TaxId 10310) viral proteins

STRING Viruses	UniProtKB	Protein name
DNBI_HHV2H	P89452	Major DNA-binding protein
DPOL_HHV2H	P89453	DNA polymerase catalytic subunit
GB_HHV2H	P08666	Envelope glycoprotein B
GC_HHV2H	Q89730	Envelope glycoprotein C
GD_HHV2H	Q69467	Envelope glycoprotein D
GE_HHV2H	P89475	Envelope glycoprotein E
GG_HHV2H	P13290	Envelope glycoprotein G
GH_HHV2H	P89445	Envelope glycoprotein H
GI_HHV2H	P13291	Envelope glycoprotein I
GJ_HHV2H	P13293	Envelope glycoprotein J
GK_HHV2H	P22485	Envelope glycoprotein K
GL_HHV2H	P28278	Envelope glycoprotein L
GM_HHV2H	P89433	Envelope glycoprotein M
GN_HHV2H	Q86539	Envelope glycoprotein N
ICP22_HHV2H	P89474	Transcriptional regulator ICP22
ICP27_HHV2H	P28276	mRNA export factor
ICP34_HHV2H	P28283	Neurovirulence factor ICP34.5
ICP4_HHV2H	P90493	Major viral transcription factor ICP4 homolog
NP04_HHV2H	P28280	Nuclear protein UL4
P89435_HHV2H	P89435	Alkaline nuclease
PRIM_HHV2H	P89471	DNA primase
RIR1_HHV2H	P89462	Ribonucleoside-diphosphate reductase large subunit
RNB_HHV2H	P89479	Probable RNA-binding protein
TEG5_HHV2H	P89467	Tegument protein UL47
UL07_HHV2H	P89430	Cytoplasmic envelopment protein 1
UL13_HHV2H	P89436	Serine/threonine-protein kinase UL13
UL24_HHV2H	P89447	Protein UL24
UL31_HHV2H	P89454	Nuclear egress protein 1
UL34_HHV2H	P89457	Nuclear egress protein 2
US03_HHV2H	P13287	Serine/threonine-protein kinase US3
US9_HHV2H	P89477	Envelope protein US9
VP16_HHV2H	P68336	Tegument protein VP16
VP22_HHV2H	P89468	Tegument protein VP22
VP26_HHV2H	P89458	Small capsomere-interacting protein

Table S26: Human alphaherpesvirus 1 (NCBI TaxId 10298) viral proteins

STRING Viruses	UniProtKB	Protein name
AN_HHV11	P04294	Alkaline nuclease
DNBI_HHV11	P04296	Major DNA-binding protein
DPOL_HHV11	P04293	DNA polymerase catalytic subunit
GB_HHV11	P10211	Envelope glycoprotein B
GC_HHV11	P10228	Envelope glycoprotein C
GD_HHV11	Q69091	Envelope glycoprotein D
GE_HHV11	P04488	Envelope glycoprotein E
GG_HHV11	P06484	Envelope glycoprotein G
GH_HHV11	P06477	Envelope glycoprotein H
GI_HHV11	P06487	Envelope glycoprotein I
GJ_HHV11	P06480	Envelope glycoprotein J
GK_HHV11	P68331	Envelope glycoprotein K
GL_HHV11	P10185	Envelope glycoprotein L
GM_HHV11	P04288	Envelope glycoprotein M
GN_HHV11	O09800	Envelope glycoprotein N
ICP0_HHV11	P08393	E3 ubiquitin-protein ligase ICP0
ICP22_HHV11	P04485	Transcriptional regulator ICP22
ICP27_HHV11	P10238	mRNA export factor
ICP34_HHV11	P36313	Neurovirulence factor ICP34.5
ICP4_HHV11	P08392	Major viral transcription factor ICP4
KITH_HHV11	P03176	Thymidine kinase
LTP_HHV11	P10220	Large tegument protein deneddylase
NP04_HHV11	P10188	Nuclear protein UL4
OBP_HHV11	P10193	Replication origin-binding protein
PAP_HHV11	P10226	DNA polymerase processivity factor
PRIM_HHV11	P10236	DNA primase
RIR1_HHV11	P08543	Ribonucleoside-diphosphate reductase large subunit
RNB_HHV11	P04487	Accessory factor US11
SHUT_HHV11	P10225	Virion host shutoff protein
TEG3_HHV11	P04291	Tegument protein UL14
TEG5_HHV11	P10231	Tegument protein UL47
UL07_HHV11	P10191	Cytoplasmic envelopment protein 1
UL13_HHV11	P04290	Serine/threonine-protein kinase UL13
UL16_HHV11	P10200	Cytoplasmic envelopment protein 2
UL24_HHV11	P10208	Protein UL24
UL25_HHV11	P10209	Capsid vertex component 2
UL31_HHV11	P10215	Nuclear egress protein 1
UL32_HHV11	P10216	Packaging protein UL32
UL34_HHV11	P10218	Nuclear egress protein 2
UL56_HHV11	P10240	Protein UL56
US03_HHV11	P04413	Serine/threonine-protein kinase US3
US9_HHV11	P06481	Envelope protein US9
VP16_HHV11	P06492	Tegument protein VP16
VP22_HHV11	P10233	Tegument protein VP22
VP26_HHV11	P10219	Small capsomere-interacting protein