Table 1: Viral Subject

| Reference taxonomy | Viral subject |
| --- | --- |
| Arenbergviridae | cell division protein [Pseudomonas phage vB\_PaeM\_PA5oct] |
| Autographiviridae | DNA primase [Pelagibacter phage HTVC019P] |
| Baculoviridae | bJDP [Spodoptera littoralis nucleopolyhedrovirus] |
| Bicaudaviridae | AAA+ ATPase [Acidianus tailed spindle virus] |
| Iridoviridae | AAA+ ATPase predicted domain [Lymphocystis disease virus Sa] |
| Iridoviridae | cell division protein 48 [lymphocystis disease virus-China] |
| Iridoviridae | ORF\_026R [Scale drop disease virus] |
| Kyanoviridae | clamp loader of DNA polymerase [Synechococcus phage S-SSM4] |
| Marseilleviridae | AAA-family ATPase [Golden Marseillevirus] |
| Marseilleviridae | AAA-family ATPase [Noumeavirus] |
| Marseilleviridae | conserved AAA-family ATPase [Melbournevirus] |
| Marseilleviridae | AAA family ATPase [Marseillevirus marseillevirus] |
| Marseilleviridae | AAA-family ATPase [Brazilian marseillevirus] |
| Mimiviridae | DnaJ chaperone protein [Fadolivirus algeromassiliense] |
| Mimiviridae | HrpA-like RNA helicase [Fadolivirus algeromassiliense] |
| Mimiviridae | DnaJ-like protein [Acanthamoeba polyphaga moumouvirus] |
| Mimiviridae | DnaJ-like protein [Acanthamoeba polyphaga mimivirus] |
| Mimiviridae | AAA family ATPase [Megavirus baoshan] |
| Mimiviridae | putative DnaJ/Hsp40 [Cafeteria roenbergensis virus BV-PW1] |
| Mimiviridae | Vesicular-fusion ATPase [Bodo saltans virus] |
| Mimiviridae | HrpA-like helicase [Acanthamoeba polyphaga moumouvirus] |
| Mimiviridae | DnaJ-like protein [Tupanvirus soda lake] |
| Mimiviridae | DnaJ-like protein [Moumouvirus australiensis] |
| Mimiviridae | putative ATP-dependent RNA helicase [Bodo saltans virus] |
| Mimiviridae | replication factor C small subunit [Fadolivirus algeromassiliense] |
| Mimiviridae | DnaJ-like protein [Tupanvirus deep ocean] |
| Mimiviridae | mitochondrial chaperone BCS1 [Fadolivirus algeromassiliense] |
| Mimiviridae | hypothetical protein QJ849\_gp315 [Powai lake megavirus] |
| Mimiviridae | hypothetical protein QJ854\_gp324 [Moumouvirus goulette] |
| Mimiviridae | DnaJ-like protein [Megavirus baoshan] |
| Mimiviridae | HrpA-like helicase [Tupanvirus soda lake] |
| Mimiviridae | ATP-dependent RNA helicase [Megavirus baoshan] |
| Mimiviridae | adenylate kinase/UMP-CMP kinase [Fadolivirus algeromassiliense] |
| Mimiviridae | RNAse l inhibitor RLI1 [Fadolivirus algeromassiliense] |
| Mimiviridae | putative ATP-dependent RNA helicase [Tupanvirus deep ocean] |
| Mimiviridae | putative AAA family ATPase [Acanthamoeba polyphaga mimivirus] |
| Mimiviridae | AAA ATPase protein [Fadolivirus algeromassiliense] |
| Mimiviridae | putative AAA family ATPase [Cotonvirus japonicus] |
| Phycodnaviridae | putative heat shock protein 40 [Yellowstone lake phycodnavirus 3] |
| Phycodnaviridae | hypothetical protein BpV1\_011c [Bathycoccus sp. RCC1105 virus BpV1] |
| Phycodnaviridae | EsV-1-173 [Ectocarpus siliculosus virus 1] |
| Phycodnaviridae | ATP-dependent zinc metalloprotease [Phaeocystis globosa virus] |
| Phycodnaviridae | cell division protein [Micromonas pusilla virus SP1] |
| Phycodnaviridae | ATP-dependent metalloprotease FtsH [Micromonas pusilla virus 12T] |
| Phycodnaviridae | hypothetical protein C5Y57\_gp012 [Dishui lake phycodnavirus 1] |
| Phycodnaviridae | hypothetical protein MpV1\_013c [Micromonas sp. RCC1109 virus MpV1] |
| Phycodnaviridae | chaperone protein DnaJ [Chrysochromulina ericina virus] |
| Phycodnaviridae | DnaJ superfamily [Phaeocystis globosa virus] |
| Phycodnaviridae | hypothetical protein OTV1\_014 [Ostreococcus tauri virus 1] |
| Phycodnaviridae | putative cell division protein FtsH2 [Ostreococcus tauri virus OtV5] |
| Pootjesviridae | clamp loader of DNA polymerase [Agrobacterium phage OLIVR5] |
| Schizomimiviridae | putative lon protease [Aureococcus anophagefferens virus] |
| Straboviridae | hypothetical protein RB43ORF057w [Escherichia phage RB43] |
| unclassified | ATP-dependent protease La Type I [Kaumoebavirus] |
| unclassified | GTP binding nuclear protein Ran [Acanthamoeba castellanii medusavirus] |
| unclassified | replication factor C large subunit [Acanthamoeba castellanii medusavirus] |
| unclassified | AAA-ATPase, CDC48-type [Hyperthermophilic Archaeal Virus 2] |
| unclassified Uroviricota | gp258 [Bacillus phage G] |
| unclassified Uroviricota | ATPase [Caulobacter phage Cr30] |
| unclassified Uroviricota | clamp loader of DNA polymerase [Bacillus phage G] |
| unclassified Uroviricota | DNA primase/helicase [Escherichia phage V18] |
| unclassified Uroviricota | DnaB-like replicative helicase [Campylobacter phage CP21] |
| unclassified Uroviricota | AAA family ATPase [Paenibacillus phage Yyerffej] |
| unclassified Uroviricota | hypothetical protein PQC19\_gp54 [Pseudomonas phage Itty13] |
| unclassified Uroviricota | hypothetical protein FDI21\_gp231 [Pseudomonas phage Noxifer] |
| unclassified Uroviricota | helicase [Escherichia phage V5] |