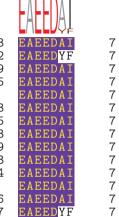
Varicellovirus Varicella-zoster virus Tegument pro..17.23
Varicellovirus Varicella-zoster virus Tegument pro..46.52
Varicellovirus Varicella-zoster virus Tegument pro..33.39
Varicellovirus Varicella-zoster virus Tegument pro..49.55
Varicellovirus Varicella-zoster virus Tegument pro..5.11
Varicellovirus Varicella-zoster virus Tegument pro..47.53
Varicellovirus Varicella-zoster virus Tegument pro..19.25
Varicellovirus Varicella-zoster virus Tegument pro..17.23
Varicellovirus Varicella-zoster virus Tegument pro..33.39
Varicellovirus Varicella-zoster virus Tegument pro..37.43
Varicellovirus Varicella-zoster virus Tegument pro..37.43
Varicellovirus Varicella-zoster virus Tegument pro..48.54
Varicellovirus Varicella-zoster virus Tegument pro..9.15
Varicellovirus Varicella-zoster virus Tegument pro..20.26
Varicellovirus Varicella-zoster virus Tegument pro..31.37
consensus



1111111

```
X non-conserved
```

 $X \ge 50\%$ conserved

 \ge 75% conserved

Varicellovirus Varicella-zoster virus Tegument pro..5.11
Varicellovirus Varicella-zoster virus Tegument pro..21.27
Varicellovirus Varicella-zoster virus Tegument pro..9.15
Varicellovirus Varicella-zoster virus Tegument pro..25.31
Varicellovirus Varicella-zoster virus Tegument pro..23.29
Varicellovirus Varicella-zoster virus Tegument pro..5.11
Varicellovirus Varicella-zoster virus Tegument pro..21.27
Varicellovirus Varicella-zoster virus Tegument pro..37.43
Varicellovirus Varicella-zoster virus Tegument pro..9.15
Varicellovirus Varicella-zoster virus Tegument pro..2.8
Varicellovirus Varicella-zoster virus Tegument pro..13.19
Varicellovirus Varicella-zoster virus Tegument pro..24.30
consensus



```
non-conserved
50% conserved
```

 \times 275% conserved

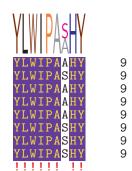
consensus

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..39.47 Simplexvirus Cercopithecine herpesvirus 1 Capsid m..11.19 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..48.56 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..20.28 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..29.37 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..1.9 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..30.38 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..2.10

```
LEAQIAALV
LEAQIAALV
LEAQIAALV
LEAQIAALV
LEAQIAALV
LEAQIAALV
LEAQIAALV
LEAQIAALV
111111111
```

```
X non-conserved
X > 50% conserved
```

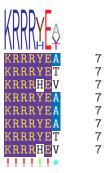
Simplexvirus Cercopithecine herpesvirus 1 Capsid m..40.48 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..46.54 Simplexvirus Cercopithecine herpesvirus 1 Capsid m..12.20 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..43.51 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..15.23 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..18.26 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..48.56 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..20.28 consensus



```
X non-conserved
```

 \times \geq 50% conserved

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..35.41 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..44.50 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..36.42 Simplexvirus Cercopithecine herpesvirus 1 Capsid m..7.13 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..34.40 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..6.12 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..16.22 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..8.14 consensus



```
X non-conserved
```

X > 50% conserved

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..29.37 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..38.46 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..32.40 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..34.42 Simplexvirus Cercopithecine herpesvirus 1 Capsid m..1.9 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..10.18 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..4.12 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..6.14 consensus

```
PGEARAPPF
PGEARGAPR
PGEARPEPR
PGEARAPPE
PGEARALPE
PGEARGAPR
!!!!!*!!
```

```
X non-conserved
\times \geq 50% conserved
```

Simplexvirus Herpes simplex virus type 2 Envelope ..43.56 Simplexvirus Human herpesvirus 1 Envelope glycopro..30.43 Varicellovirus Varicella-zoster virus Envelope gly..34.47 Simplexvirus Herpes simplex virus type 2 Envelope ..15.28 Simplexvirus Human herpesvirus 1 Envelope glycopro..2.15 Simplexvirus Human herpesvirus 2 Envelope glycopro..30.43 Simplexvirus Human herpesvirus 2 Envelope glycopro..2.15 Varicellovirus Varicella-zoster virus Envelope gly..6.19 consensus



```
X non-conserved
```

 $\geq 50\%$ conserved

∑ 75% conserved

Simplexvirus Herpes simplex virus type 2 Envelope ... 29.37 Simplexvirus Human herpesvirus 1 Envelope glycopro..44.52 Varicellovirus Varicella-zoster virus Envelope gly..48.56 Simplexvirus Herpes simplex virus type 2 Envelope ..1.9 Simplexvirus Human herpesvirus 2 Envelope glycopro..44.52 Simplexvirus Human herpesvirus 2 Envelope glycopro..16.24 Simplexvirus Human herpesvirus 1 Envelope glycopro..16.24 Varicellovirus Varicella-zoster virus Envelope gly..20.28 consensus



```
X non-conserved
\times \geq 50% conserved
```

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..10.16
Simplexvirus Cercopithecine herpesvirus 16 UL26 55..20.26
Simplexvirus Human herpesvirus 1 Capsid scaffoldin..33.39
Simplexvirus Human herpesvirus 1 Capsid scaffoldin..38.44

EASNAEA SLP<mark>QPEA</mark> TGSQPEA Simplexvirus Human herpesvirus 2 Capsid scaffoldin..7.13 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..5.11 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..10.16 EASNAEA **** consensus

```
X > 50\% conserved
```

X non-conserved

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..44.51 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..25.32 ECDHODRO Simplexvirus Human herpesvirus 1 Capsid scaffoldin..46.53 YCDQDEPD Simplexvirus Human herpesvirus 2 Capsid scaffoldin..48.55 Simplexvirus Cercopithecine herpesvirus 1 Capsid m..16.23 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..18.25 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..20.27 consensus



```
X non-conserved
X > 50\% conserved
X > 75% conserved
```

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..32.49 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..39.56 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..29.46 Simplexvirus Human herpesvirus 2 Capsid scaffoldin...31.48 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..11.28 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..1.18 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..3.20 consensus



```
X > 50\% conserved
```

X non-conserved

18

18

18 18

18

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..29.36 PAPVFGAI Simplexvirus Cercopithecine herpesvirus 1 Capsid m..10.17 PPPAFGA Simplexvirus Cercopithecine herpesvirus 16 UL26 55..32.39 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..40.47 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..42.49 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..4.11 consensus

X non-conserved

 $X \geq 50\%$ conserved

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..21.28 Simplexvirus Cercopithecine herpesvirus 16 UL26 55...29.36 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..39.46 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..12.19 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..1.8 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..11.18 consensus



X non-conserved $X \geq 50\%$ conserved

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..2.10 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..39.47 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..48.56 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..21.29 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..11.19 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..20.28 consensus



```
X non-conserved
```

 $X \geq 50\%$ conserved

consensus

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..19.29 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..46.56 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..29.39 Simplexvirus Cercopithecine herpesvirus 16 UL26 55..1.11 Simplexvirus Human herpesvirus 1 Capsid scaffoldin..18.28 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..20.30



```
X non-conserved
X \geq 50\% conserved
```

Simplexvirus Cercopithecine herpesvirus 1 Capsid m..19.25 RRAPPSA Simplexvirus Cercopithecine herpesvirus 16 UL26 55..25.31 GRARRAPTP Simplexvirus Cercopithecine herpesvirus 16 UL26 55..28.34 RRAAPTP Simplexvirus Human herpesvirus 1 Capsid scaffoldin..17.23 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..47.53 Simplexvirus Human herpesvirus 2 Capsid scaffoldin..19.25 consensus



X non-conserved $X \geq 50\%$ conserved