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          10      20      30      40      50      60      70      80      90      100
XtERV-S      QALLEVGVFRPA--VSPFNAPVFPVKKKD-----GSRWMTVDYRGLNKAAPPLAAAVPDI--VSIVEDIAQTAGDWHAVLDLANAFFSIPIAEESQDQFAFTW
African bullfrog ERV      .M.A.....--R.P-----Y.I.....V.....M--TL.T...E.....D.K.....
MuERV-L      IVNKDA.VV.T--T...S.IW.Q.T-----K.QVVT.I.....V--LL.Q.NTSP.T.Y.AI.....V.VHKDH.K.I...S.
Guineapig ERV-L      IVNKDA.VV.T--T...S.IW.Q.T-----K.QVVT.I.....V--LL.L.NTSP.T.Y.AI.....HKDH.K....S.

Turtle_dove ERV      TVHESQ.ISKT--R...S.IW.R.SS-----DE.L.....EVT...S.....M--LELQFELESK.AK.Y.TI.I.....V.A.CRP.....
Ruff ERV      TVHEIQ.ISKT--H...S.IW.R.SN-----E.L.....EVT...S.....M--LELQYELESK.AK.Y.TI.I.....L.A.CRP.....
Chicken ERV      .E.ER.II...--H.Y.S.IW.R.P-----T.....E...VT.IH...N--A.LMDTSLREIETY.C.....K.....
Chimp ERV-S      VTSK..QIVHGT--H.Y.FL.W.R.P-----T-Q....WK...VT...H...P.--MDLMDRLTMEL.EY.Y.V.....D..P..ER.....

BFV      ---.RQ..L.QQ--N.EM.T.Y.P.A-----R..VL..EV.VT.IV.TQNCHS--A..LNTLYR--PYKST....G.WAH..KP.DYWIT...
AKV      PVS.DQ.ILV.C--Q..W.T.LL...PGT---NDY.PVQ.L.EV..RVEDIHPT..NP--YNLLSGLPPS-HR.YT...KD...CLRLHPT..PL...E.
FeLV      PIS.DQ.ILK.C--Q..W.T.LL...PGT---EDY.PVQ.L.EV..RVEDIHPT..NP--YNLLSTLPPS-HP.YT...KD...CLRLHS..LL...E.
GALV      PVA.DL.LV.C--R..W.T.LL...PGT---NDY.PVQ.L.EI..RVQDIHPT..NP--YNLLSSLPPS-YT.YS...KD...CLRLHPN..PL...E.
Syn-Opo1      PVIKTA.FLI.C--H..W.I.LL.XXXXWC---KDY.PVQ.L.EV.IWVEDIHPT..NPSIYTTLLSTLTPH-LG.YTT...KD...TV.L.LL..PL...E.
Syn-Rum1L      LVRKQA.ILVEC--QTAW.T.IL...EGG---QDY.PVQ.L.LVSQ.TVT.HLS..KP--YTLLSLLPPK-TRIYTC...TE..SR.RL.PA..PI...E.
Syn1      PYQKAQ.LVK.C--S..C.T.ILG.R.PN-----Q..LVQ.L.II.E.VF..YP..SSP--YTLLSL.PEE-AE.FT...KD...C.VRPD..FL...ED
XEN1      ---.N.AIKRQ--S..C.T.L...E.GKAGEPKY.LVQ.L.AV.E.TVMETPL.SNP--HT.LSG.PPS-ATHFRAV..T...Y..LR.DC.YL...H
HTLV-1      ---.A.HIE.Y--TG.G.N...AN-----T..FIF.L.AT.SLTID.SSSS.GP---PDLSSLPT..LAHLQTI..KD...Q..LPKQF.PY...V
BLV      ---.A.YIS.W--DG.G.N...R.PN-----A..FVH.L.AT.ALTK.IP.LS.GP---PDLTA.PTH-PPIIC...KD...Q..VEDRFRFYLS..L
HIV-1      ---.KISKIPEN.Y.T...AI...S---TK...KL.F.E...RTQDFWEVQLG...PHTAGLKK--KKSVT...VGD.Y..V.LD.SFRKYT...I
EIAV      ---.KISE.SDNN.Y.S.I.VI..RS-----K..LLQ.L.E...TVQVGTEISRGL---PHPGGLIK--CKHMT...IGD.Y.T..LDP.FRPYT...I
RSV      PVW.QL.HIE.S--L.CW.T...VIR.AS-----Y.LLH.L.AV.AKLV.FG.VQOGA---PVL.SALPR--WPLM...KDC...L..QDREA...L
MMTV      ---.QL.HLEES--N..W.T...VI...S-----K..LLQ.L.AV.ATMHDMG.LQ.GL---PSPVAVPK--WEIIII..QDC..N.KLHP.DCKR...SV

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          110      120      130      140      150      160      170      180      190      200
XtERV-S      -----EGKQYTLTVVPOGY--MHSPTLCHGLVARDLAMLPN--MDCKFYHYIDDVMISGS-SEEQVRKDLQTVVTYMQKRGWAINPEK-IQGPATSVRFLGMIW
African bullfrog ERV      -----D.R.-AP..L...-L...I...I...E.KI.P--IS.QM...N...T-TQDE.Q...I.MD..KE.V...LS.-V...Q..KI...
MuERV-L      -----Q.Q...F..L.V.--IN..A..N..R..DR.DLP-QSITLV...I.LV.P..QE.ATT.DSL..H.RI...E...T...S...K...VQ.
Guineapig ERV-L      -----Q.Q...F..L...-IN..A..N..Q...DRFSLP-Q.ITLV...LT.P..QE.ATA.DSL.RHLRA...E...T...S-T.K...VQ.

Turtle_dove ERV      -----R.I...WNRL..W--K...I...IQTT.EQGKAP---EHLQ...IIVW.D-TAKE.FEKGERIIQILLDA.F..KRS.-VK...REIQ...IK.
Ruff ERV      -----R.V...WNRL..W--K...I...IQTA.EKGEAP---EHLQ...II.W.N-TA.E.FEKGHKIIQILL.A.F..RRG.-VK...QEIQ...VK.
Chicken ERV      -----R.W.FQ.L...-V...F..N...S..NWNKP-STV.MF...L.LTSD-.I.ALE.TVPSLI..L.EK...Q.-V...GL..K...VV.
Chimp ERV-S      -----EQ.F.ML...-A.HHLSWYCCGHGFC.EMS-KRVH.F...I.LISD-.LADLEVVPFWRQHLAAC...V.ES.-V...GL.TK...V..

BFV      -----G..T.CW..L...F--LN..A.FTAD.VDI.KDI---PNVQV--V...YV.SA-T.QEHLDI.E.IFNRLSTA.YIVSLK.-SKLAKET.E...FSI
AKV      RDPG-MGISG.L.W.RL...F--KN...FDEALH...DFRIQHP.LILLQ.V..ILLAAT-.LDCQQGTRALLTLGNL.YRASAK.-A.LCQKQ.KY..YLL
FeLV      RDPE-IGLSG.L.W.RL...F--KN...FDEALH...DFRVRYPALVLLQ.V..LLLAAA-TRTECLEGKALLETGNK.YRASAK.-A.ICLQE.TY..YSL
GALV      KDPE-KGNTG.L.W.RL...F--KN...FDEALH...DFRANPQVLLQ.V..LLLCAAP-TY.DCK.GT.KLLQELS.L.YRVSAK.-A.LCQRE.TY..YLL
Syn-Opo1      YDED-TQATVKIMW.RL...F--KN...IFREAL.A.RDFCIDHPQVTLQ.V.NLLLTA.-Q.LCESATLSLLITENEL.YKVSJK.-ASIAQQE.TY..YKL
Syn-Rum1L      EDPI-GGNKQ.L.W.HLS..F--KNT.NIFGEAL.S.EPFQPERYG.WLLQ.V..LLAAE-PWVECCEGTPGSS.CG.RQDPECRGK.EA.ICKEE..Y..FVL
Syn1      P-----LNPTS.L.W..L...F--RD..H.FGQAL.Q.SQF--SYL.TLVLQ.V..LILATH-.TLCHQAT.ELLNFLTTC.YKVSJK.-ARLCSQQIKYX.LKL
XEN1      -----RQ..VW..L..A--QN...H.FSLALTSI.DSWISSHPEITLQ.V..LLLCAAP-DLPTCEASSTDLLSFLADQ.CKASK.-L.WCQ.T.V...QCI
HTLV-1      PQQCNYGP.TR.AWR.L...F--KN...HFEMQL.HI.QPIROAFPQ.TILQ.M..ILLASP-.HADLQLLSEATMASLISH.LPVSEN.-T.QTPGTIK...Q.I
BLV      PSPGGLQPHRRFAWR.L...F--IN..A.FERALQEP.RQVSAAFSOSLLVS.M..ILYASP-T..RSQCY.ALAARLRDL.FQVAS.-TSQTPSP.P...QMV
HIV-1      PSINNETP.VR.QYN.L..W--KG..SIFQSSMTKI.QPFRERSQHP.IVI.Q.M..LYVGSdleig.H.AKIEELRAHLLSW.FITPDK.-H.KEP-PFLWM.YEL
EIAV      PSINHQEPD.R.VWNCL..F--VL..YIQKTLQEI.EPFRERYPEVQL.Q.M..LFVGSNG.KK.HKELIELRAILLEE.FETPDD.-L.EVP-PYSW.YQL
RSV      PSVNNQAPARFQWK.L..M--TC...I.QLV.GQV.EP.RLKHPSLCML..M..LLLAA.-HDGLEAGEE.ISTLERA.FT.S.D.-V.REP-G.QY..YKL
MMTV      PSPNFKRPYQRQWK.L..M--KN...QKF.DKAILTVRDQY.SYIV..M..ILLAHP-.RSI.DEI.TSMIQALN.H.LVST..-..KYD-NLKY..THI

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