

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/DOCK8.pdb Tue Feb 1 12:00:06 2022

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Pavo_muticus	MATLPAADRRAFAALKINRYSSAEVRKQFTLQPGFAQFCQR-SLSTPGFSTLHLPSFYDAV	59
Pavo_cristatus	MATLPAADRRAFAALKINRYSSAEVRKQFTLQPGFAQFCQR-SLSTPGFSTLHLPSFYDAV	59
Gallus_gallus	MATLPAADRRAFAALKINRYSSAEVRKQFTLQPGFAQFCQR-SLSTPGFSTLHLPSFYDAV	59
Anas_platyrhynchos	MATLPAARRAFAALKINRYSSAEIRKQFTLQPGFAQFCQR-SLSTPGFSTLHLPSFYDAV	59
Chelonia_mydas	MATLPAADRRAFAALKINRHSSAEIRKQFTLQPSVGGFLR-SISASG--SIQLPPFYDAV	57
Mus_musculus	MATLPSAERRAFALKINRYSSSEIRKQFTLPPNLGOYHRH-SISTSGFPSLQLPOLYEPV	59
Rattus_norvegicus	MATLPSAERRAFALKINRYSSSEIRKQFTLPPNLGOYHRH-SLSTSGFPSLQLPOLYEPV	59
Canis_lupus_familiaris	MATLPGAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Equus_caballus	MATLPSAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Bos_taurus	MATLPSAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Homo_sapiens	MATLPSAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Pan_troglodytes	MATLPSAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Macaca_mulatta	MATLPSAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Callithrix_jacchus	MATLPSAERRAFALKINRYSSAEIRKQFTLPPNLGOYHRO-SISTSGFPSLQLPOLFYDPV	59
Latimeria_chalumnae	MATLSGSDRRAFAALKINRHSSAEIRKQFTNQYGFVPFHQHSQSISGSQTLCLP-FYDAL	59
Rhinatrema_bivittatum		
Xenopus_tropicalis	MATLSAERRAFALKINRNSSAEIRKHLSLQVSGEFILR-GLGTPTSSTLQLPPFYDVV	59
	1.....10.....20.....30.....40.....50.....60	

	* :*. * : :***: :*:. :****: * :*:*****.***	
Pavo_muticus	DPVDFEGFLMTQLNNLDSEMAHELGDFFPEDDLLDIVFTPKECRTLQPSIPEDGVELDSHVR	119
Pavo_cristatus	DPVDFEGFLMTQLNNLDSEMAHELGDFFPEDDLLDIVFTPKECRTLQPSIPEDGVELDSHVR	119
Gallus_gallus	DPVDFEGFLMTQLNNLDSEMAHELGDFFPEDDLLDIVFTPKECRTLQPSMPEDGVELDSHVR	119
Anas_platyrhynchos	DPDLDFEGFLMMQLNNLDSELAHELGDFFPEDDLLDVFTPKECRTLQPSMPEDGVELDSHVR	119
Chelonia_mydas	EPVDFEGFLMTQLNNLDSEIVQELGDFFPEDDLLDIVFTPKECRTLQPSLPEEGVELDPHVR	117
Mus_musculus	EPVDFEGLVMTHLNSLDAELAQELGDLTDDDLHVAFTPKECRTLQHSLSPEEGVELDPHVR	119
Rattus_norvegicus	EPVDFEGLVMTHLNSLDAELAQELGDLTDDDLHVAFTPKECRTLQHSLSPEEGVELDPHVR	119
Canis_lupus_familiaris	EPVDFEGLLMTTHLNSLDVELAQELGDFTEDDLVDVFTPKECRTLQPSLPEEGVELDPHVR	119
Equus_caballus	EPVDFEGLLMTTHLNSLDVELAQELGDFTEDDLVDVFTPKECRTLQPSLPEEGVELDPHVR	119
Bos_taurus	EPVDFEGLLMTTHLNSLDVELAQELGDFSIEDDLLVAFTPKECRTLQPSLPEEGVELDPHVR	119
Homo_sapiens	EPVDFEGLLMTTHLNSLDVQLAQELGDFTEDDLVDVFTPKECRTLQPSLPEEGVELDPHVR	119
Pan_troglodytes	EPVDFEGLLMTTHLNSLDVQLAQELGDFTEDDLVDVFTPKECRTLQPSLPEEGVELDPHVR	119
Macaca_mulatta	EPVDFEGLLMTTHLNSLDVQLAQDLGDFTEDDLVDVFTPKECRTLQPSLPEEGVELDPHVR	119
Callithrix_jacchus	EPVDFEGLLMTTHLNLTLVQLAQELGDLTDDDLVDVFTPKECRTLQPSLPEEGVELDPHVR	119
Latimeria_chalumnae	EPVDFEEFLMTQLNNLDPDFVQELGDFFPEDDLETFIHRECRITVRPSVPEEGVELDPHVR	119
Rhinatrema_bivittatum	-----MTQLNNLDSELVQDLGDFFPEDDLEIVLTIPRECRITQPSVPEEGVELDPHVR	51
Xenopus_tropicalis	DPVDFESFLMTHINNQDPEFRQELGDFFEDDELTVYKAKECRITVQPSLPEQGVELDPHVR	119
70.....80.....90.....100.....110.....120	

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Pavo_muticus	DCVQTYIRDWLIVNRKNQGN	SDICSLKNKGSRKDLHK	--HLQKOTFESETSDSS	DANFOT 177
Pavo_cristatus	DCVQTYIRDWLIVNRKNQGN	SDICSLKNKGSRKDLHK	--HLQKOTFESETSDSS	DANFOT 177
Gallus_gallus	DCVQTYIRDWLIVNRKNQGN	SDICSLKNKGSRKDFHK	--HLQKOTFESETSDSS	DASFOA 177
Anas_platyrhynchos	DCVQTYIRDWLIVNRKNQGN	SDICNLKNKGSRKDFHK	--RLQKOTFESETLDS	GEATFOT 177
Chelonia_mydas	DCVQTYIREWLIVNRKNQGN	SEICTFKKKGSRKDFHK	--TLQKOTFESETLDCND	ASYQA 175
Mus_musculus	DCVQTYIREWLIVNRKNQGN	SEFCFSFKKTGSRRDFQK	--TLQKOTFESETLDCSE	PDPTOT 177
Rattus_norvegicus	DCVQTYIREWLIVNRKNQGN	SEFCFSFRKTGSRRDFHK	--TLQKOTFESETLDCSE	PATOT 177
Canis_lupus_familiaris	DCVQTYIREWLIVNQKNQGN	SEICGFKKTGSRRDFHK	--TLQKOTFESESLGHEP	STQV 177
Equus_caballus	DCVQTYIREWLIVNQKNQGN	SEICGFKKTGSRKDFHK	--TLQKOTFESETLGESE	PSAQT 177
Bos_taurus	DCVQTYIREWLIVNRKNQGN	SEVCSFKKIGSRKDFHK	--TLQKOTFESETLDCSE	PSAQA 177
Homo_sapiens	DCVQTYIREWLIVNRKNQGN	SPEICGFKKTGSRKDFHK	--TLPKOTFESETLDCSE	PAAQA 177
Pan_troglodytes	DCVQTYIREWLIVNRKNQGN	SPEICGFKKTGSRKDFHK	--TLPKOTFESETLDCSE	PAAQA 177
Macaca_mulatta	DCVQTYIREWLIVNRKNQGN	SPEICGFKKTGSRKDFHK	--TLPKOTFESETLDCSE	PTAQP 177
Callithrix_jacchus	DCIQTYIREWLIVNRKNQGN	SPEICGFKKTGSRKDFHK	--TLPKOTFESETLDCSE	PDAT 177
Latimeria_chalumnae	DCVQTYTQEWLIVNRKFQ	GESGSGNFYKITSQKDFHK	--TLQKQLFESD-VDAS	SLNHQS 176
Rhinatrema_bivittatum	DCVQTYIREWLIVNRKNQGN	TSGSCSFSRAGSQKDFLKNK	TLQKOTFESEDDVLDY	GGQNDQ 111
Xenopus_tropicalis	DCISITYRESLIVTRKSG	ENQVIGSFSRSGSRKDFPK	--TLQKQVFESDEAE	PRPNEQND 177

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Pavo_muticus      GPR-PVDVLPEDTSRTAPASSDFDLRSLODPRLNLLRHVSAAEEFERONEEARRTNRHA 236
Pavo_cristatus    GPR-PVDVLPEDTSRTAPASSDFDLRSLODPRLNLLRHVSAAEEFERONEEARRTNRHA 236
Gallus_gallus     GPR-PVHVLPEdTSTRAPASSDFDLRSLODPRLNLLRHVSAAEEFERONEEARRTNRHA 236
Anas_platyrhynchos GPR-HVPTLPEDTSRTAPASSDFDLRSLODPRLNLLRHVSAAEEFERONEEARRTNRHA 236
Chelonia_mydas    DPR-PLNVLCDETGRTTTLTSCDFNPRILQDPRLNLLQHSVEDFERONEEARRANRHA 234
Mus_musculus      GPRHPLNVLCDSVGKGPLTSCDFDLRSLOPDERLENLLQLVSAEDFEKEKEEARKTNRPA 237
Rattus_norvegicus GPRHRFNVLCDVSGKGPIITSCDFDLRSLOPDERLENLLQLS-AEDFEKEKEEARKTNRTA 236
Canis_lupus_familiaris RPR-HLNVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 236
Equus_caballus    GPRCRLNVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 237
Bos_taurus        GPR-HLSVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 236
Homo_sapiens      GPR-HLNVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 236
Pan_troglodytes   GPR-HLNVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 236
Macaca_mulatta    GPR-HLNVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 236
Callithrix_jacchus GPR-HLNVLCDSVGKGPIITACGFDLRSLOPDERLENLLQVSAEDFEKONEEARRTNROA 236
Latimeria_chalumnae SSR-RLAVQCDESGRTTLTSSDFDLRGIQPSRLNLLQPI SPEDTRONEETRKENROA 235
Rhinatrema_bivittatum MVCRLPLTVLCSEAGRTPLSSGDLRLGLHPDRLDHLLOHVNAEDYARONKEARRANRNA 171
Xenopus_tropicalis DSP--ITLLIDESGQTALTSCDFDLRGLRPETRLKNLLQFSNVEDLERONEEARKSNRQS 235
      .....190.....200.....210.....220.....230.....240

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Pavo_muticus      ELLALYPSVDEEDAVEIRVPVDRPKEHLGNRIILVKLQTLKFDIEIEPLFACIALYDIKER 296
Pavo_cristatus    ELLALYPSVDEEDAVEIRVPVDRPKEHLGNRIILVKLQTLKFDIEIEPLFACIALYDIKER 296
Gallus_gallus     ELLALYPSVDEEDAVEIRVPVDRPKEHLGNRIILVKLQTLKFDIEIEPLFACIALYDIKER 296
Anas_platyrhynchos ELLALYPSVDEEDAVEIRVPVDRPKEHLGNRIILVKLQSLKFDIEIEPLFACIALYDIKER 296
Chelonia_mydas    ELFALYPATDEEDAVEIRVPVDCPKEHLGNRIILVKLQTLKFDIEIEPLFACIALYDVKER 294
Mus_musculus      ELFALYPPVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 297
Rattus_norvegicus ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Canis_lupus_familiaris ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Equus_caballus    ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 297
Bos_taurus        ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Homo_sapiens      ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Pan_troglodytes   ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Macaca_mulatta    ELFALYPSVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Callithrix_jacchus ELFALYPTVDEEDAVEIRVPVPCPKEHLGNRIILVKLQTLKFEIEIEPLFASIALYDVKER 296
Latimeria_chalumnae ELFALYPTVDEEDAVEIRVPVPCPKEHLGYRILIKLQSLKFEIEIEPLFASIALYDLKER 295
Rhinatrema_bivittatum ELFALYPAMDEEDAVEIRVPVPCPREHFGRILVKLQTLKFDIEIEPLFASIALYDIKER 231
Xenopus_tropicalis DLFALSPPMDEEDTVEIRVPVDCPKEHMGYRIMVKLQTLKFEIDIEPLFASIALYDLKEK 295
      .....250.....260.....270.....280.....290.....300

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Pavo_muticus      KKISENFHCDLNPDSLGRFLRSHTPSTDLSTQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Pavo_cristatus    KKISENFHCDLNPDSLGRFLRSHTPSTDLSTQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Gallus_gallus     KKISENFHCDLNPDSLGRFLRSHTPSTDLSTQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Anas_platyrhynchos KKISENFHCDLNPDSLGRFLRSHTPSTDLSTQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Chelonia_mydas    KKISENFHCDLNPDSLGRFLRSHTLCLDSSQARSVFSVTYPSPIYLVVVKIEKVLQOG 354
Mus_musculus      KKISENFHCDLNPDSLGRFLRAHTPSIDPSSQARSVFSVTYPSPIYLVVVKIEKVLQOG 357
Rattus_norvegicus KKISENFHCDLNPDSLGRFLRAHTPSVDPSSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Canis_lupus_familiaris KKISENFHCDLNPDSLGRFLRAHTPSVDPSSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Equus_caballus    KKISENFHCDLNPDSLGRFLRAHTPSVATSSQARSVFSVTYPSPIYLVVVKIEKVLQOG 357
Bos_taurus        KKISENFHCDLNPDSLGRFLRAHTPSVASSSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Homo_sapiens      KKISENFHCDLNPDSLGRFLRAHTPSVAASSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Pan_troglodytes   KKISENFHCDLNPDSLGRFLRAHTPSVAASSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Macaca_mulatta    KKISENFHCDLNPDSLGRFLRAHTPSVAASSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Callithrix_jacchus KKISENFHCDLNPDSLGRFLRAHTPSVAASSQARSVFSVTYPSPIYLVVVKIEKVLQOG 356
Latimeria_chalumnae KKISENFYCDLNPDSLGRFLRAHTPSIAQSSQARSAMLSVTYPSPIYLVVVKIEKVLQOG 355
Rhinatrema_bivittatum KKISENFHCDLNPDSLGRFLRAHTPSIAQSSQARSAMLSVTYPSPIYLVVVKIEKVLQOG 291
Xenopus_tropicalis KKISENFHCDLNPDSLGRFLRAHTPSIAQSSQARSAMLSVTYPSPIYLVVVKIEKVLQOG 355
      .....310.....320.....330.....340.....350.....360

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Pavo_muticus	EIGDCAEPYMLVLENEAGKTKEKIEKLKAQAEFCQRLGKYRMPFAWIPISLTNFFNVST	416
Pavo_cristatus	EIGDCAEPYMLVLENEAGKTKEKIEKLKAQAEFCQRLGKYRMPFAWIPISLTNFFNVST	416
Gallus_gallus	EIGDCAEPYMLVLENEAGKTKEKIEKLKAQAEFCQRLGKYRMPFAWIPISLTNFFNVST	416
Anas_platyrhynchos	EIGDCAEPYMLVLESEAGKTKEKIEKLKAQAEFCQRLGKYRMPFAWIPISLTNFFNVST	416
Chelonia_mydas	EIGDCAEPYMLVLESGGKSKEKVEKLKAQAEFCQRLGKYRMPFAWIPISLTNFFNVST	414
Mus_musculus	EIADCAEPYMIIKESDGGKSKEKVEKLKLAESFCQRLGKYRMPFAWAPISLASFFNVST	417
Rattus_norvegicus	EIADCAEPYMIIKESDGGKSKEKVEKLKLAESFCQRLGKYRMPFAWAPISLASFFNVST	416
Canis_lupus_familiaris	EIGDCAEPYMVIKEGDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPINLSSFFNVST	416
Equus_caballus	EIGDCAEPYMVIKESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLTSFFNVST	417
Bos_taurus	EIGDCAEPYMVIKESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLASFFNVST	416
Homo_sapiens	EIGDCAEPYTVIKESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLSSFFNVST	416
Pan_troglodytes	EIGDCAEPYTVIKESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLSSFFNVST	416
Macaca_mulatta	EIGDCAEPYLVIKESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLSSFFNVST	416
Callithrix_jacchus	EIGDCAEPYMVIRESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLSSFFNVST	416
Latimeria_chalumnae	EISDCAEPYVMKESDATKNKDIEKLKGQAEFCQRLGKYRMPFAWCPINIMSIIASTT	415
Rhinatrema_bivittatum	EIGECAEPYLVLKESDGGKSKEKIEKLKLAESFCQRLGKYRMPFAWAPISLNYINIST	351
Xenopus_tropicalis	EISDCAEPYMLVKETESGKTOKIEKLKQAEFCQRLGKYRMPFAWAPVSLNCINVMIT	415
370.....380.....390.....400.....410.....420	

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Pavo_muticus	L E R E V S E A E G L N G K G S T E K R A T I L L Q A R R L S E R S L N T E D S Y P V S N F K I V S L T H S T F F K Q E	476					
Pavo_cristatus	L E R E V S E A E G L N G K G S T E K R A T I L L Q A R R L S E R S L N T E D S Y P V S N F K I V S L T H S T F F K Q E	476					
Gallus_gallus	L E R E V S E A E G L N G K G S T S D K R A T I L L Q A R R L S E R S L S T E D S Y P V S N F K I V S L T H S T F F K Q E	476					
Anas_platyrhynchos	L E R E I P E T E G L N G K G S T S D K K A T I L L Q A R R L S E R S L S E D N Y P A S N F K I I S L T L S T F F K Q E	476					
Chelonia_mydas	L E R E M S E A E S L N G K G T T G D R R T I M M L Q R R L S E R S L N S D S Y A V S N F K A T I L T V N I F I K Q E	474					
Mus_musculus	L E R E S T D V E P G V G R N S V G E K R S - L S Q S R R P S E R T L S L E E N G V G S N F K A T T L A T N I F F K Q E	476					
Rattus_norvegicus	L E R E S T D L E P G A G R N S V G E R R S - L S Q S R R P S E R T L S F E E N G V G S N F K T T L A T N I F F K Q E	475					
Canis_lupus_familiaris	L D R E V T D V E S M V G K S S V G E R R T - L S Q S R R L S E R A L S L E D N G V G S N F K P T T I A V N N F F K Q E	475					
Equus_caballus	L E R E V T D V D S M V G R S T V G E R R T - L S Q S R R L S E R A L S L E E N G V G S N L K T P I T V S S F F K Q E	476					
Bos_taurus	L D R E V T D V E S M V G K G S A G E R R T - L S Q S R R L S E R A F S L E E N G V G S N F K -- T L T I N S F F K Q E	473					
Homo_sapiens	L E R E V T D V D S V V G R S S V G E R R T - L A Q S R R L S E R A L S L E E N G V G S N F K T S L V S S F F K Q E	475					
Pan_troglodytes	L E R E V T D V D S V V G R S S V G E R R T - L A Q S R R L S E R A L S L E E N G V G S N F K T S T L S V S S F F K Q E	475					
Macaca_mulatta	L E R E V T D V D S V V G R S S V G E R R T - L A Q S R R L S E R A L S L E E N G V G S N F K T S T L S V S S F F K Q E	475					
Callithrix_jacchus	L E R E V T D V D P V V G R S S V G E R R T - L A Q S R R L S E R A L S L E E N G V G S N F K T S T L S V N S F F K Q E	475					
Latimeria_chalumnae	I E R D S P D F E S A N G K G A P G D R R T - L G P S R R T I E R F N I L E D C Y N L S G F K S T V L T P S I L F K Q E	474					
Rhinatrema_bivittatum	L E R D T G E S E F N G R A A T G D R K T I L L Q A R R L S E R A N M Y E E G C P L S N F K P T T I T V N S F I K Q E	411					
Xenopus_tropicalis	L E R D S P E S E N P N G R N P A T D R R A S W T A G R R F S D R C N S L E E N - T Q L P F K P T I L T V N S F F K Q E	474					
430.....440.....450.....460.....470.....480						

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Pavo_muticus	GDRLSDEDLFKFLADFKRSSSLORRIKTLPGTLKLEISPAPENLGYCLTPELLPVKPFPE	536
Pavo_cristatus	GDRLSDEDLFKFLADFKRSSSLORRIKTLPGTLKLEISPAPENLGYCLTPELLPVKPFPE	536
Gallus_gallus	GDRLSDEDLFKFLADFKRSSSLORRIKTLPGTLKLEISPAPENLGYCLTPELLPVKPFPE	536
Anas_platyrhynchos	GDRLSDEDLFKFLADFKRSSSLORRIKTLPGTLKLEISPAPENLGYCLTPELLPVKPFPE	536
Chelonia_mydas	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLKLEISPASEVLSCCLTPELLQVKPFPE	534
Mus_musculus	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGSLRLEISPAPDVMNCCLTPEMLPVKPFPE	536
Rattus_norvegicus	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGSLRLEIAPAPDVMNCCLTPEMLPVKPFPE	535
Canis_lupus_familiaris	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLRLEISPAPENVINCCLTPEMLPVKPFPE	535
Equus_caballus	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLRLEISPAPETVSCCLTPEMLPVRPFPE	536
Bos_taurus	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLKLEISLAPETINCCCLTPEMLPVRPFPE	533
Homo_sapiens	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLRLEISTAPEIINCCCLTPEMLPVKPFPE	535
Pan_troglodytes	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLRLEISTAPEIINCCCLTPEMLPVKPFPE	535
Macaca_mulatta	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLRLEISTAPEIISCCCLTPEMLPVKPFPE	535
Callithrix_jacchus	GDRLSDEDLFKFLADFKRSSSLORRVKSIPGLLRLEVSTAPEIINCCCLTPEMLPVRPFPE	535
Latimeria_chalumnae	GDRLSDEDLFKFLADSKRIASLQRKLKTIPIGFLKLEISPAPESISNCLTPELLPVVPFPE	534
Rhinatrema_bivittatum	GDRLSDEDLFKFLADFKRSSSLORRVKSMGSLKLEIVSPVCEGLGCCLTPELLPVKPFPE	471
Xenopus_tropicalis	GDKLSDEDLFKFLADFKR--SSLORRIKSIPGLLKLEISPVCDGLSCLSPPELLPVK--PE	531
490.....500.....510.....520.....530.....540	

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Pavo_muticus	NRSRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFANRPASARNITIKIQFMCGEDPS	596
Pavo_cristatus	NRSRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFANRPASARNITIKIQFMCGEDPS	596
Gallus_gallus	NRSRPHKEILEFFPIKEVYPHTIYRNLLYVYPQRLNFANRPASARNITIKIQFMCGEDPS	596
Anas_platyrhynchos	NRSRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFANRPASARNITIKIQFMCGEDPS	596
Chelonia_mydas	NRSRPQKEILEFFPVREVYPHTIYRNLLYVYPQRLNFANRLASGRNITIKIQFMCGEDAT	594
Mus_musculus	NRTRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFASKLASARNITIKIQFMCGEDPS	596
Rattus_norvegicus	NRTRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFANKLASARNITIKIQFMCGEDPS	595
Canis_lupus_familiaris	NRTRPHKEILEFFPVREVYPHTIYRNLLYVYPQRLNFTNKLASARNITIKIQFMCGEDAS	595
Equus_caballus	NRTRPHKEILEFFPVREVYPHTIYRNLLYVYPQRLNFANKLASARNITIKIQFMCGEDAS	596
Bos_taurus	NRGRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFANKLASARNITIKIQFMCGEDAS	593
Homo_sapiens	NRTRPHKEILEFFPTREVYPHTIYRNLLYVYPQRLNFVNKLASARNITIKIQFMCGEDAS	595
Pan_troglodytes	NRTRPHKEILEFFPTREVYPHTIYRNLLYVYPQRLNFVNKLASARNITIKIQFMCGEDAS	595
Macaca_mulatta	NRTRPHKEILEFFPTREVYPHTIYRNLLYVYPQRLNFVNKLASARNITIKIQFMCGEDAS	595
Callithrix_jacchus	NRTRPHKEILEFFPIREVYPHTIYRNLLYVYPQRLNFANKLASARNITIKIQFMCGEDAG	595
Latimeria_chalumnae	NRSRPIKEVLEFFPSREVYPHTIYRNLLYVYPQRLNFANRLASARNITIKIQFMSGEDPS	594
Rhinatrema_bivittatum	HRSRPTKEILEFFPVREVYPHTIYRNLLYVYPQRLNFANRLASARNIAIKIQFMSGEDPS	531
Xenopus_tropicalis	GRTRPIKEILEFFPVKEVYPHTIYRNLLYVYPQRLNFANRLSARNIAIKIQFMNGEDAK	591
550.....560.....570.....580.....590.....600	

	:**.*.*::.*:*.*****:*****:*****:.******.*:***	
Pavo_muticus	CAMPVIFGKSSGPEFVQEMYTAITYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	656
Pavo_cristatus	CAMPVIFGKSSGPEFVQEMYTAITYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	656
Gallus_gallus	CAMPVIFGKSSGPEFVQEMYTAITYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	656
Anas_platyrhynchos	CAMPVIFGKSSGPEFVQEIYTAITYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	656
Chelonia_mydas	CSMPIIFGKSSGPEFLQEMYTAITYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	654
Mus_musculus	NAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	656
Rattus_norvegicus	NAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	655
Canis_lupus_familiaris	NAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	655
Equus_caballus	NAMPIIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLSVHHLLFTFYHISCQ	656
Bos_taurus	SAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	653
Homo_sapiens	NAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	655
Pan_troglodytes	NAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	655
Macaca_mulatta	SAMPVIFGKSSGPEFLQEVYTAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	655
Callithrix_jacchus	NAMPVIFGKSSGPEFLQEVYAAITYHNKSPDFYEEVKIKLPAKLTVNHHLLFTFYHISCQ	655
Latimeria_chalumnae	CAMPVIFGKSSGPEYVQEVYTAITYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	654
Rhinatrema_bivittatum	CAMPIIFGKSSGAEFVQEACTAVTYHNKSPDFYEEVKIKLPAKLTEKHHLLFTFYHISCQ	591
Xenopus_tropicalis	NAMPVIFGKSSGPEFLSEVTTAVTYHNKTPDFYEEVKIKLPAKLTNRHHLLFTFYHISCQ	651
610.....620.....630.....640.....650.....660	

	**	*	.	*	::	*****	*	*.*.*.*	*	*****	::**	::*	::*	*****	*	*****	
Pavo_muticus	PKQ	--	GASVETLLIGYSWLP	PILLNDR	LQTGHYCLP	VALDKLPLHYS	SIHSPEK	VPSQ	TPPIK								714
Pavo_cristatus	PKQ	--	GASVETLLIGYSWLP	PILLNDR	LQTGHYCLP	VALDKLPLHYS	SIHSPEK	VPSQ	TPPIK								714
Gallus_gallus	PKQ	--	GASVETLLIGYSWLP	PILLNDR	LQTGHYCLP	VALDKLPFHYS	SIHSPEK	VPSQ	TPPIK								714
Anas_platyrhynchos	PKQ	--	GASVETTVGYSWLP	PILLNDR	LQTGHYCLP	VALDKLPFHYS	SIHSPEK	VPSQ	TPPIK								714
Chelonia_mydas	PKQ	--	GACVETLLIGYSWLP	PILLNDR	LQTGHYCLP	VALDKLPLNYS	SIHMSPEK	VPSQ	SPPIK								712
Mus_musculus	QKQ	--	GASGESILLGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHSAEK	VPLQN	PPIK								714
Rattus_norvegicus	QKQ	--	GASGESILLGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHSAEK	VPLQN	PPIK								713
Canis_lupus_familiaris	QKQ	--	GASVESILLGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPLQN	PPIK								713
Equus_caballus	QKQ	--	GASVESILLGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPLQN	PPIK								714
Bos_taurus	QKQ	--	GNSVESILLGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPSQ	NPPIK								711
Homo_sapiens	QKQ	--	GASVETLLIGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPLQN	NPPIK								713
Pan_troglodytes	QKQ	--	GASVETLLIGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPLQN	NPPIK								713
Macaca_mulatta	QKQ	--	GASVETLLIGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPLQN	NPPIK								713
Callithrix_jacchus	QKQ	--	GGSVETLLIGYSWLP	PILLNER	LQTGSYCLP	VALEKLPNYS	SIHMSAEK	VPLQN	NPPIK								713
Latimeria_chalumnae	QKQ	Q	GSSVESILLGYSWLP	PILLNER	LQTGHYCLP	VALDKLP	TNYS	SIHMSPEK	VPSQ	SPPIK							714
Rhinatrema_bivittatum	QKQ	--	GASVETLLIGYSWLP	PILLNDR	LQTGHYCLP	VALEKLPNYS	SIHMSPEK	VPSQ	TPPIK								649
Xenopus_tropicalis	SKQ	--	GACVETLLIGYSWLP	PILLNDR	LQTGSYCLP	VAMEKLPNYS	SIHMSPEK	VPSQ	SPPIK								709
			670		680		690		700		710		720			

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*.:*****:.*:***:*****:****:*. :****: ***: * *****
Pavo_muticus      WVEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRLMDQKITEATLEHEL 774
Pavo_cristatus    WVEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRLMDQKITEATLEHEL 774
Gallus_gallus     WVEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRLMDQKITEATLEHEL 774
Anas_platyrhynchos WVEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRLMDQKITEATLEHEL 774
Chelonia_mydas    WVEGHKGVFNIEVQAVSSIHTQDNHLEKFFTLCHSLESQVTFPIRVMQKITEAALEHEL 772
Mus_musculus      WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVSFPIRVLDQKITESTLEHEL 774
Rattus_norvegicus WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKITEENTLEHEL 773
Canis_lupus_familiaris WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKISETSLEHEL 773
Equus_caballus    WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVSFPIRVLDQKISETALEHEL 774
Bos_taurus        WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKISESALEHEL 771
Homo_sapiens      WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKISEMALEHEL 773
Pan_troglodytes   WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKISEMLEHEL 773
Macaca_mulatta    WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKISEMALEHEL 773
Callithrix_jacchus WAEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHSLESQVTFPIRVLDQKISETALEHEL 773
Latimeria_chalumnae WVEGHKGVFNIEVQGVSSVHTQDNHLEKFFTLCHALEGRVTFPIRIQDKIMENNLLEHEL 774
Rhinatrema_bivittatum WVEGHKGVFNIEVQAVSSVHTQDNHLEKFFTLCHALEGPITFPIRVLDQKVPETSLLEHEL 709
Xenopus_tropicalis WVEGHKGVFDLEVQAVSSVHTQDNHLEKFFTLCHALEGPVTFPIRVLDQKITESSLLEHEL 769
.....730.....740.....750.....760.....770.....780

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***:.*:*****:.*:***:***:*. :****:*. :****:***** ..*****
Pavo_muticus      KLSIIICLNSSRLEPLVLFLHLVLDKLFQLAVQPMVIAGQTANFSQFAFESVVAIVNSLHN 834
Pavo_cristatus    KLSIIICLNSSRLEPLVLFLHLVLDKLFQLAVQPMVIAGQTANFSQFAFESVVAIVNSLHN 834
Gallus_gallus     KLSIIICLNSSRLEPLVLFLHLVLDKLFQLAVQPMVIAGQTANFSQFAFESVVAIVNSLHN 834
Anas_platyrhynchos KLSIIICLNSSRLEPLVLFLHLVLDKLFQLAVQPMVIAGQTANFSQFAFESVVAIVNSLHN 834
Chelonia_mydas    KLSIIICLNSSRLEPLVLFLHLVLEKLFQLAVQPMVIAGQTANFSQFAFESVVAIVNSLHN 832
Mus_musculus      KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 834
Rattus_norvegicus KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 833
Canis_lupus_familiaris KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 833
Equus_caballus    KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 834
Bos_taurus        KLSIIICLNSSRLEPLVLFLHLVLDKLFQLFVQPMVIAGQPANFSQFAFESVVVTANSLHN 831
Homo_sapiens      KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 833
Pan_troglodytes   KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 833
Macaca_mulatta    KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 833
Callithrix_jacchus KLSIIICLNSSRLEPLVLFLHLVLDKLFQLSVQPMVIAGQTANFSQFAFESVVAIANSLHN 833
Latimeria_chalumnae KLSIIICLNSSRLEPLVLFLHQLVLDKLFQLTVQPMVIAGQTASLAQYAFESVVSIVNSLHN 834
Rhinatrema_bivittatum KLSIVICLNSSRLEPLVLFLHLVLDKLFQLTLQPMVIAGQTANFSQFAFESVVAIVSSLHN 769
Xenopus_tropicalis KLSVVCLSRLEPLVLFLHLVLDKLFHLTVQPMVIGSQANFSQYAFESVVSIVNSLHN 829
.....790.....800.....810.....820.....830.....840

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*.* *****:.*:*****: .. :.* *:* *:*:.*:
Pavo_muticus      SKDLSKQDQHGRNCLLASVYYYVFRLLPDPQKEVPKLGAGGSAALTESR--YYTFGRGTSVAVSV 893
Pavo_cristatus    SKDLSKQDQHGRNCLLASVYYYVFRLLPDPQKEVPKLGAGGSAALTESR--YYTFGRGTSVAVSV 893
Gallus_gallus     SKYLSKQDQHGRNCLLASVYYYVFRLLPDPQKEVPKLGAGGSAALTESR--YYTFGRGTSVAVSV 893
Anas_platyrhynchos SKDLSKQDQHGRNCLLASVYYYVFRLLPDPQREVAKPGAGGSAVLSESR--YYTFGRASAVAV 893
Chelonia_mydas    SKDLSKQDQHGRNCLLASVYYYVFRLLPEPORDIARLGAAGSASLPESR--YYTFGRGTTAVSV 891
Mus_musculus      SKDLRKQDQHGRNCLLASVHYVFRLLPELHRDTSKSGGPT--TVVPDPR--YHTYGRGTSAAAV 892
Rattus_norvegicus SKDLRKQDQHGRNCLLASVHYVFRLLPELHRDAPKSGGPT--AVVPDPR--YHTYGRGTSAAAV 891
Canis_lupus_familiaris SKDLAKQDQHGRNCLLASVHYVFRLLPEPPRDPPKSGGP--VALPDPR--YHTYGRGTSAAAV 890
Equus_caballus    SKDLGKQDQHGRNCLLASVHYVFRLLPELQKDVPKSGGP--TALPDPR--YHTYGRGTSAAAV 891
Bos_taurus        SKGLGKQDQHGRNCLLASVHYVFRLLPEPORDMPKSGGP--TVLPDPR--YHTYGRGTSAAAV 888
Homo_sapiens      SKDLSKQDQHGRNCLLASVHYVFRLLPEVQDVPKSGAP--TALLDPRS--YHTYGRGTSAAAV 891
Pan_troglodytes   SKDLSKQDQHGRNCLLASVHYVFRLLPEVQDVPKSGAP--TALPDPRS--YHTYGRGTSAAAV 891
Macaca_mulatta    SKDLSKQDQHGRNCLLASVHYVFRLLPELQDVPKSGAP--TALPDPR--YHTYGRGTSAAAV 890
Callithrix_jacchus SKDLSKQDQHGRNCLLASVHYVFRLLPEPORDMPKSGAP--TALPDPR--YHTYGRGTSAAAV 890
Latimeria_chalumnae STDLSKQDQHGRNCLLAAYYYYVFRLLPDSLQDMMTPGSAMTALIPETR--YYTVGRSTAAASV 893
Rhinatrema_bivittatum SKDLSKQDQHGRNCLLASVYYYVFRLLPEVLKDLKAGAAAGAMPDTR--YYTVGRSSAVSV 828
Xenopus_tropicalis SKDLSKQDQHGRNCLLASVYYYVFRLLPEVQDRTIIAAGN---LPEDR--YYTVGRGTSAAASV 884
.....850.....860.....870.....880.....890.....900

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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.*:::.* :*.*****. : .*****.:** * .: .*** : . . .
Pavo_muticus      GSKLLQSRVISCNPDITVTQTAADEEVKNIMSSKPVHSSSRMSFYIEGTNDMPGVCAN 953
Pavo_cristatus    GSKLLQSRVISCNPDITVTQTAADEEVKNIMSSKPVHSSSRMSFYIEGTNDMPGVCAN 953
Gallus_gallus     GSKLLQSRVISCNPDITVTQTAADEEVKNIMSSKPADHSSSRMSFYIEGTNDMPGVCTN 953
Anas_platyrhynchos GSKLLQSRVISCNPDITVTQAATDEEVKSIMSSKPVHSSSRMSFYIEGTNDTPNVCAN 953
Chelonia_mydas    GSRLQLSRVMSCSNPDIPGTQTATDEEVKNIMSSKVADRTRMSFYIEATNDTISNVS 951
Mus_musculus      SSKLMQARVMSSSNPDLTGSHCAADEEVKNIMSSKIADRNC SRMSYYCSGNSDAPGSTAA 952
Rattus_norvegicus SSKLMQARVMSSSNPDLAGTHCAADEEVKNIMSSKIADRNC SRMSYYCSGNSDVPGSTAA 951
Canis_lupus_familiaris SSKLMQARVMSSSNPDLAGTHCAADEEVKNIMSSKIADRNC SRMSYYCSGNSDVPSTAA 950
Equus_caballus    SSKLLQARVMSSSNPDLAGTHSAVDEEVKNIMSSKVTDNRN SRMSYYCSGNSDVPSTTA 951
Bos_taurus        SSKLLQARVMSSSNPDLAGPHCAADEEVKSIMSSKIADRNC SRMSYYCSGNSDAPSSSTA 948
Homo_sapiens      SSKLLQARVMSSSNPDLAGTHSAADEEVKNIMSSKIADRNC SRMSYYCSGNSDAPSSPAA 951
Pan_troglodytes   SSKLLQARVISSSNPDLAGTHSAADEEVKNIMSSKIADRNC SRMSYYCSGNSDAPSSSTA 951
Macaca_mulatta    SSKLLQARVMSSSNPDLAGTHSAADEEVKNIMSSKIADRNC SRMSYYCSGNSDVPSTTA 950
Callithrix_jacchus SSKLLQARVLSSSNPDLAGTHSEADEEVKNIMSSKVADRNC SRMSYYCSGNSDVPSTTA 950
Latimeria_chalumnae GSRLMQSRILSSSNPDITVPQATADEEVKNIMS-KGLDRCGNRMSYVQVNTYFQSAGAI 952
Rhinatrema_bivittatum GSRLIQTRLLSCSNPDIAGTQSATDEEVRSIMSSKGLDRSGSRMSYFIEASSEMOPACAS 888
Xenopus_tropicalis GSKLMQSRSLSSSNPDITGNQNNADEEVKNIMSSKVTGRNFRNMSHFTEDSNDMQHVIA 944
.....910.....920.....930.....940.....950.....960

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.*. * ****:*****.:*: * ****:****:****:****: : :*: . ***:
Pavo_muticus      PRPSSKKHFFHEELALQMVVSTGMVREAVFKYAWFFFELLIKSMAQYVHSIEKQDNVRRSR 1013
Pavo_cristatus    PRPSSKKHFFHEELALQMVVSTGMVREAVFKYAWFFFELLIKSMAQYVHSIEKQDNVRRSR 1013
Gallus_gallus     PRPSSKKHFFHEELALQMVVSTGMVREAVFKYAWFFFELLIKSMAQYVHSIEKQDNVRRSR 1013
Anas_platyrhynchos PRPSSKKHFFHEELALQMVVSTGMVREAVFKYAWFFFELLIKSMAQYVHNIEKQDNPRRSR 1013
Chelonia_mydas    PRPSSKKHFFHEELALQMVVSTGMVREAVFKYAWFFFELLIKSMAQYVHNIEKQHTPRRSR 1011
Mus_musculus      PRPVSKKHFFHEELALQMVVSTGVVRETVFKYAWFFFELLVKSMAQYVHNLDKRDSEFRRT 1012
Rattus_norvegicus PRPVSKKHFFHEELALQMVVSTGLVRETVFKYAWFFFELLVKSMAQYVHNLDKRDSEFRRT 1011
Canis_lupus_familiaris PRPASKKHFFHEELALQMVVSTGIVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1010
Equus_caballus    PRPASKKHFFHEELALQMVVSTGMVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1011
Bos_taurus        PRPVSKKHFFHEELALQMVVSTGMVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1008
Homo_sapiens      PRPASKKHFFHEELALQMVVSTGMVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1011
Pan_troglodytes   PRPASKKHFFHEELALQMVVSTGMVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1011
Macaca_mulatta    PRPASKKHFFHEELALQMVVSTGMVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1010
Callithrix_jacchus PRPASKKHFFHEELALQMVVSTGMVRETVFKYAWFFFELLVKSMAQYVHNMDKRDSEFRRT 1010
Latimeria_chalumnae PRPVNKKLFHEELALQMVVSTNVVRENFKYAWFFFELLVKSMAQYICNSEKHGPRRSR 1012
Rhinatrema_bivittatum PRPANRKHFFHEELALQMVVSTGMVREGVFKYAWFFFELLIKSMAQYVQHMEKHESRRRT 948
Xenopus_tropicalis TRTSIIKHFFHEEMALQMVVSTGMVRESVFKYAWFFFELLVKSMAQYVHSVDKQDVPRRSR 1004
.....970.....980.....990.....1000.....1010.....1020

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***** *:*:***.***:* .: * * ***.*:***:*****:***** *
Pavo_muticus      FSDRFKDDITTIVNVVTSEIAALLVKPQKESEQAEGINISLAFFLYDLLSLMDRGFVFNL 1073
Pavo_cristatus    FSDRFKDDITTIVNVVTSEIAALLVKPQKESEQAEGINISLAFFLYDLLSLMDRGFVFNL 1073
Gallus_gallus     FSDRFKDDVTTIVNVVTSEIAALLVKPQKESEQAEGINISLAFFLYDLLSLMDRGFVFNL 1073
Anas_platyrhynchos FSDRFKDDITTIVSVVTSEIAALLVKPQKESEQAEGINISLAFFLYDLLSLMDRGFVFNL 1073
Chelonia_mydas    FSDRFKDDITTIVNVVTSEIAALLVKTKETEHAEGINISLAFFLYDLLSLMDRGFVFNL 1071
Mus_musculus      FSDRFKDDITTIVNVVTSEIAALLVKPQKESEQAEGINISLAFFLYDLLSIMDRGFVFNL 1072
Rattus_norvegicus FSDRFKDDITTIVNVVTSEIAALLVKPQKESEQAEGINISLAFFLYDLLSIMDRGFVFNL 1071
Canis_lupus_familiaris FSDRFKDDITTIVNVVTSEIAALLVKPQKETEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1070
Equus_caballus    FSDRFKDDITTIVNVVTSEIAALLVKPQKENEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1071
Bos_taurus        FSDRFKDDITTIVNVVTSEIAALLVKPQKETEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1068
Homo_sapiens      FSDRFMDDITTIVNVVTSEIAALLVKPQKENEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1071
Pan_troglodytes   FSDRFMDDITTIVNVVTSEIAALLVKPQKENEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1071
Macaca_mulatta    FSDRFMDDITTIVNVVTSEIAALLVKPQKENEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1070
Callithrix_jacchus FSDRFMDDITTIVNVVTSEIAALLVKPQKENEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1070
Latimeria_chalumnae FSDRFKDDITTIVNVVTAEIGTSLSKQKETEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1072
Rhinatrema_bivittatum FSDRFKDDVTTIVSVVTSEIAALLIKPQKETEQAEKMNISLAFFLYDLLSLMDRGFVFNL 1008
Xenopus_tropicalis FSDRFKDDISTIVNVVTSEIGSLLSKPQKESEQAEGINISLAFFLYDLLSLMDRGFVFNL 1064
.....1030.....1040.....1050.....1060.....1070.....1080

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*:::*** ** . . ::*****: *****:*. . .:*.***:***:
Pavo_muticus      IKHYCNQLSNKLNLSLTLISMRLEFLRILCSHEHYLNLNLLFFMT--SASTPASPSPSLSSQ 1132
Pavo_cristatus    IKHYCNQLSNKLNLSLTLISMRLEFLRILCSHEHYLNLNLLFFMT--SASTPASPSPSLSSQ 1132
Gallus_gallus     IKHYCNQLSNKLNLSLTLISMRLEFLRILCSHEHYLNLNLLFFMT--SASTPASPSPSLSSQ 1132
Anas_platyrhynchos IKHYCNQLSNKLNLSLTLISMRLEFLRILCSHEHYLNLNLLFFMT--SASAPASPSPSLSSQ 1132
Chelonia_mydas    IRHYCNQLSNKLNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--SVSAPASPSPSLSSQ 1130
Mus_musculus      IKHYCSQLSAKLNILPTLISMRLEFLRILCSHEHYLNLNLLFFMT--TDTAPASPCPSISSQ 1131
Rattus_norvegicus IKHYCTQLSAKLNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--PDTAPASPCPSISSQ 1130
Canis_lupus_familiaris IKHYCNQLSAKLNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--ADTAPASPCPSISSQ 1129
Equus_caballus    IKHYCNQLSAKLNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--TDTAPASPCPSISSQ 1130
Bos_taurus        IKHYCNQLSAKLNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--ADTAPASPCPSISSQ 1127
Homo_sapiens      IRHYCSQLSAKLSNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--ADTAPASPCPSISSQ 1130
Pan_troglodytes   IKHYCNQLSAKLSNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--ADAAPASPCPSISSQ 1130
Macaca_mulatta    IRHYCNQLSAKLNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--ADTAPASPCPSISSQ 1129
Callithrix_jacchus IRHYCNQLSAKLSNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--ADTVPTSPCPSISSQ 1129
Latimeria_chalumnae IKNYCNQLGAKLSNLTPTLISMRLEFLRILCSHEHYLNLNLLFFMT--SASAPASPCPSISSQ 1132
Rhinatrema_bivittatum IKHYCNQLSTKLNSFPTLISMRLEFLRILCSHEHYLNLNLLFFMT--SVSAPSSPCPSLSSQ 1067
Xenopus_tropicalis IKHYCNQLSTKLNSFPTLISMRLEFLRILCSHEHYLNLNLLFFMT--SSTPASPCPSISSQ 1122
.....1090.....1100.....1110.....1120.....1130.....1140

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*****:***:***:***:***:***:***:***:***:***:***:***:
Pavo_muticus      NSSSCSSFQDQKIAGMFDLSSEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1192
Pavo_cristatus    NSSSCSSFQDQKIAGMFDLSSEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1192
Gallus_gallus     NSSSCSSFQDQKIAGMFDLSSEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1192
Anas_platyrhynchos NSSSCSSFQDQKIAGMFDLSSEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1192
Chelonia_mydas    NSSSCSSFQDQKIAGMFDLSSEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1190
Mus_musculus      NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1191
Rattus_norvegicus NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1190
Canis_lupus_familiaris NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1189
Equus_caballus    NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1190
Bos_taurus        NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1187
Homo_sapiens      NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1190
Pan_troglodytes   NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1190
Macaca_mulatta    NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1189
Callithrix_jacchus NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1189
Latimeria_chalumnae NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1192
Rhinatrema_bivittatum NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1127
Xenopus_tropicalis NSSSCSSFQDQKIAGMFDLTPEYRQQHFLTGLLFTELAAALDADCEGISKVQKAVSAI 1182
.....1150.....1160.....1170.....1180.....1190.....1200

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.***.***** * : * * :* ***** . **::***** **: : * . **
Pavo_muticus      SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1252
Pavo_cristatus    SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1252
Gallus_gallus     SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1252
Anas_platyrhynchos SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1252
Chelonia_mydas    SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1250
Mus_musculus      SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1249
Rattus_norvegicus SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1248
Canis_lupus_familiaris SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1249
Equus_caballus    SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1250
Bos_taurus        SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1247
Homo_sapiens      SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1248
Pan_troglodytes   SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1248
Macaca_mulatta    SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1247
Callithrix_jacchus SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1247
Latimeria_chalumnae SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1251
Rhinatrema_bivittatum SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1185
Xenopus_tropicalis SLLSSHDLDPKCSKKEMKIKIAALYPLVGIILDSLPQLHDFITISDARSKGKRTGNPEEE 1240
.....1210.....1220.....1230.....1240.....1250.....1260

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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      : . * . ** * : * : : : : * : : * : * : * : * : * :
Pavo_muticus      QESAGAISPNVALAIAGNQFN--LRSSGTSLASLSYRQSATLGPDTTRNLLICFLWIMKN 1310
Pavo_cristatus    QESAGAISPNVALAIAGNQFN--LRSSGTSLASLSYRQSATLGPDTTRNLLICFLWIMKN 1310
Gallus_gallus     QESAGAISQNALAIAGNQFN--LRSSGTSLASLSYRQSATLGPDTTRNLLICFLWIMKN 1310
Anas_platyrhynchos QDSAGAINQNALAIAGNQFS--LRSSGISLASLPYRQSATLGPDTTRNLLICFLWIMKN 1310
Chelonia_mydas    QESTNPINQSVAMAIAGNQFN--LRTSSAPLSSSLPYKQYNLTSPDTTRNLLICFLWIMKN 1309
Mus_musculus      QDVANGINQNALAIAGNHFN--LKTSGAMLSSSLPYKQYNMLNADTTRHLMICFLWIMKN 1307
Rattus_norvegicus QDVANGINQNALAIAGNHFN--LKTSGAMLSSSLPYKQYNMLNADTTRHLMVCFWIMKN 1306
Canis_lupus_familiaris QEGTSAINQNALAIAGNNFN--LKTSGAMLSSSLPYKQYNMLNADTTRHLMICFLWIMKN 1307
Equus_caballus    QEGTSAINQNALAIAGNNFN--LKTSGTMLSSSLPYKQYNMLNADTTRNLMICFLWIMKN 1308
Bos_taurus        QEGTSAINQNALAIAG--NFN--LKTSTTMLSSSLPYKQYNMLNADTTRNLMICFLWIMKN 1304
Homo_sapiens      QEGAGAINQNALAIAGNNFN--LKTSGIVLSSSLPYKQYNMLNADTTRNLMICFLWIMKN 1306
Pan_troglodytes   QEGAGAINQNALAIAGNNFN--LKTSGIVLSSSLPYKQYNMLNADTTRNLMICFLWIMKN 1306
Macaca_mulatta    QEGAGAINQNALAIAGNNFN--LKTSGIVLSSSLPYKQYNMLNADTTRNLMICFLWIMKN 1305
Callithrix_jacchus QEGASAINQNALAIAGNHFN--LKTSGMMLSSSLPYKQYNMLNADTTRSLMICFLWIMKN 1305
Latimeria_chalumnae SEAINPINQSVAMAIAGNPLSLLKNTVSAATTLPSKQYNALTAETSRNLLICFLWIMKN 1311
Rhinatrema_bivittatum PESPSITINHVALAIAGNQFN--LLKPAGATLSSSLPYKQYSMLTPETSRSLICLLWILKN 1244
Xenopus_tropicalis SETPSITINPSVAMAVAGNQFN--IKTS--TISSVPVKVYSTLSPESSRILLTICFLWIMKN 1296
.....1270.....1280.....1290.....1300.....1310.....1320

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      * : : : : * : : * : * : * : : : * : * : * : * : * : * : * :
Pavo_muticus      ADQNLIQKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSNQALQKSRDVKARLEE 1370
Pavo_cristatus    ADQNLIQKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSNQALQKSRDVKARLEE 1370
Gallus_gallus     ADQNLIQKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSNQALQKSRDVKARLEE 1370
Anas_platyrhynchos ADQNLIQKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSTQALQKSRDVKARLEE 1370
Chelonia_mydas    AEQSLIRKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1369
Mus_musculus      ADQSLIRKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSNQVLQKSRDVKARLEE 1367
Rattus_norvegicus ADQSLIRKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSNQVLQKSRDVKARLEE 1366
Canis_lupus_familiaris ADQSLIRKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1367
Equus_caballus    ADQSLIRKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1368
Bos_taurus        ADQTLIRKWIADLPSMQLNRILDLLFICVSCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1364
Homo_sapiens      ADQSLIRKWIADLPSTQLNRILDLLFICVLCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1366
Pan_troglodytes   ADQSLIRKWIADLPSTQLNRILDLLFICVLCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1366
Macaca_mulatta    ADQSLIRKWIADLPSMQLNRILDLLFICVLCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1365
Callithrix_jacchus ADQSLIRKWIADLPVQLNRILDLLFICVLCFEYKKGQSSDKVSTQVLQKSRDVKARLEE 1365
Latimeria_chalumnae ADHSLIQKWTVDLSTTQLNKILELLYIGVSCFEYKKGQSSDKVSTQVLQKSRDAKARLEE 1371
Rhinatrema_bivittatum ADQNLIQKWLADLAPLQLSKILDLLYICISCFEYRGKQASDKVSTLVLQKSRDVKARLEE 1304
Xenopus_tropicalis AEQNVIQKWITYMPIQLNRILDLLYMCVSCFEYKGRQSSDKVSTLVLQKSRDVKARLEE 1356
.....1330.....1340.....1350.....1360.....1370.....1380

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      *** * * * * * : * : * : * : * : * : * : * : * : * :
Pavo_muticus      ALLRGE GARGEMMKRCRIPAGNDRSSGLNENLRWRKVQTHWRQANERQDKTKAELDOEAL 1430
Pavo_cristatus    ALLRGE GARGEMMKRCRIPAGNDRSSGLNENLRWRKVQTHWRQANERQDKTKAELDOEAL 1430
Gallus_gallus     ALLRGE GARGEMMKRCRIPAGNDRSAGLNENLRWRKEQTEWRQANERQDKTKAELDOEAL 1430
Anas_platyrhynchos ALLRGE GARGEMMKRCRIPAGNDRSAGLNENLRWRKEQTHWRQANERQDKTKAELDOEAL 1430
Chelonia_mydas    ALLRGE GARGEMMKRCRTPAGNDRFPGLNENLRWRKEQTQWRQANERLDKTKAELDOEAL 1429
Mus_musculus      ALLRGE GARGEMMRR--RIPGT--DRFPGLNENLRWRKEQTQWRQANEKLDKTKAELDOEAL 1425
Rattus_norvegicus ALLRGE GARGEMMRR--RIPGT--DRFPGLNENLRWRKEQTQWRQANEKLDKTKAELDOEAL 1424
Canis_lupus_familiaris ALLRGE GARGEMMRRRCRAPGN--DRFPGLSENLRWRKEQTHWRQANEKQDKTKAELDOEAL 1426
Equus_caballus    ALLRGE GARGEMMRRRCRTPGN--DRFPGLNENLRWRKEQTHWRQANEKLDKTKAELDOEAL 1427
Bos_taurus        ALLRGE GARGEMMRRRCRTPGN--DRFPGLNENLRWRKEQTHWRQANEKLDKTKAELDOEAL 1423
Homo_sapiens      ALLRGE GARGEMMRR--RAPGN--DRFPGLNENLRWKKEQTHWRQANEKLDKTKAELDOEAL 1424
Pan_troglodytes   ALLRGE GARGEMMRR--RAPGN--DRFPGLNENLRWKKEQTHWRQANEKLDKTKAELDOEAL 1424
Macaca_mulatta    ALLRGE GARGEMMRR--RAPGN--DRFPGLNENLRWKKEQTHWRQANEKLDKTKAELDOEAL 1423
Callithrix_jacchus ALLRGE GARGEMMRR--RAPGN--DRFPGLNENLRWKKEQTHWRQANEKLDKTKAELDOEAL 1423
Latimeria_chalumnae ALLGGAGARGEMMKRCRIPAGNERFQGVNENLRWRKQDQWQRONNERLDKTKAELDOEAL 1431
Rhinatrema_bivittatum ALLRGE GARGEMMRRRCRTPAGNDRFPGLSENLRWRKEQTQWRQANERLDKTKAELDOETL 1364
Xenopus_tropicalis ALLRGE GARGEMMRR--WKTGNERFAGLNENLRWRKEQTQWRQANERLNMKAEIDOEAI 1414
.....1390.....1400.....1410.....1420.....1430.....1440

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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	.. *****.: : ** * * * : :*.:****:*.:.** :*. :* **.:*	
Pavo_muticus	ISGNLATEANLIILDMOENIIQASFAGECRDNLGGVLKVLVNSLGC	1490
Pavo_cristatus	ISGNLATEANLIILDMOENIIQASFAGECRDNLGGVLKVLVNSLGC	1490
Gallus_gallus	ISGNLATEANLIILDMOENIIQASFAAECDNDLGGVLKVLVNSLGC	1490
Anas_platyrhynchos	ISGNLATEANLIILDMOENIIQASFAAECDNDLGGVLKVLVNSLGC	1490
Chelonia_mydas	ISGNLATEANLIILDMOENIIQASSAVDCKDNLGGVLKVLVNSLSC	1489
Mus_musculus	ISGNLATEANLIILDMOENIIQASSALDCKDSLGGVLRVLVNSLSC	1485
Rattus_norvegicus	ISGNLATEANLIILDMOENIIQASSSLDCKDSLGGVLRVLVNSLSC	1484
Canis_lupus_familiaris	ISGNLATEANLIILDMOENIIQASSALDCKDSLGGVLKVLVNSLSC	1486
Equus_caballus	ISGNLATEANLIILDMOENIIQATSALDCKDSLGGVLRVLVNSLSC	1487
Bos_taurus	ISGNLATEANLIILDMOENIIQASSALDCKDSLGGVLRVLVNSLSC	1483
Homo_sapiens	ISGNLATEAHLIILDMOENIIQASSALDCKDSLGGVLRVLVNSLNC	1484
Pan_troglodytes	ISGNLATEAHLIILDMOENIIQASSALDCKDSLGGVLRVLVNSLNC	1484
Macaca_mulatta	ISGNLATEAHLIILDMOENIIQASSALDCKDSLGGVLRVLVNSLNC	1483
Callithrix_jacchus	ISGNLATEANLIILDMOENIIQASSALDCKDSLGGVLRVLVNSLNC	1483
Latimeria_chalumnae	ISGNLATEANLIILDMLEITIGIAASDCKDNVLGGVFRVLLHSLSC	1491
Rhinatrema_bivittatum	ISGNLATEANLIVLDSLEMITIQSSSGDCKDSLGGVLKVLVHSLSN	1424
Xenopus_tropicalis	MGRNLATEANVTILDIVETIIQTSLSIDCKDNLGGVLKVLVHSLSTN	1474
1450.....1460.....1470.....1480.....1490.....1500	

	:* ** *.***** *** :*:*****.*:: ** *.*****:***.*** *** :* ** *.***** *** :*:*****.*:: ** *.*****:***.*** ***	
Pavo_muticus	LRALIAKFGDFLFEEVEQCADLCQVVLHHCSSSIDITRTOACATLYLLMRYSFSSTSNF	1550
Pavo_cristatus	LRALIAKFGDFLFEEVEQCADLCQVVLHHCSSSIDITRTOACATLYLLMRYSFSSTSNF	1550
Gallus_gallus	LRALIAKFGDFLFEEVEQCADLCQVVLHHCSSSIDITRTOACATLYLLMRYSFSSTSNF	1550
Anas_platyrhynchos	LRALIAKFGDFLFEEVEQCADLCQVVLHHCSSSIDVTRTOACATLYLLMRYSFSSTSNF	1550
Chelonia_mydas	LRALIAKFGDLLFEEEMEQCADLCQVVLHHCSSSIDITRTOACATLYLLMRHSFSSISNF	1549
Mus_musculus	LRALIAKFGDLLFEEEMEQCADLCQVVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1545
Rattus_norvegicus	LRALIAKFGDLLFEEEMEQCADLCQVVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1544
Canis_lupus_familiaris	LRALIAKFGDLLFEEVEQCADLCQVVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1546
Equus_caballus	LRALIAKFGDLLFEEVEQCADLCQVVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1547
Bos_taurus	LRALIAKFGDLLFEEVEQCADLCQVVLHHCSSSMITRSQACATLYLLMRFSFGATSNF	1543
Homo_sapiens	LRALIAKFGDLLFEEVEQCADLCQVVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1544
Pan_troglodytes	LRALIAKFGDLLFEEVEQCDFLCHOVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1544
Macaca_mulatta	LRALIAKFGDLLFEEVEQCDFLCHOVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1543
Callithrix_jacchus	LRALIAKFGDLLFEEVEQCANLCHOVLHHCSSSMVTRSQACATLYLLMRFSFGATSNF	1543
Latimeria_chalumnae	LRALIIKFGDLLFEEEAECADLCQVVLHHCSSSIDSTRTOACATLYIMRYSFSNPSNF	1551
Rhinatrema_bivittatum	LRALIVKFGDLLFEEVEQCSDLQVVLHHCSSAMDESTRSQASATLYLIMRYSFSNISNF	1484
Xenopus_tropicalis	IRLLIIKFADFLFEEVEQCSDLQVVLHHCSSLESTRSQASATLYLIMRYSFSNISNF	1534
1510.....1520.....1530.....1540.....1550.....1560	

	:*****.* ***: :.*.***** ** *: * ** *: * **	
Pavo_muticus	ARVKMOVMTMSLASLVGKSPEFNEEFLLRRSLRITILAYAEEDVDMQATPFPIQVEELLCNLN	1610
Pavo_cristatus	ARVKMOVMTMSLASLVGKSPEFNEEFLLRRSLRITILAYAEEDVDMQATPFPIQVEELLCNLN	1610
Gallus_gallus	ARVKMOVMTMSLASLVGKSPEFNEEFLLRRSLRITILAYAEEDVDMQATPFPIQVEELLCNLN	1610
Anas_platyrhynchos	ARVKMOVMTMSLASLVGKSPEFNEEFLLRRSLRITILAYAEEDVDMQATPFPIQVEELLCNLN	1610
Chelonia_mydas	ARVKMOVMTMSLASLVGKSSDFNEEYLRRSLRITILAYAEEDMDMOTLFPQVKEHLNLN	1609
Mus_musculus	ARVKMOVMTMALASLVGKAPDFNEEHLRRSLRITILAYSEEDTAMQITLFPFMQVEELLCNLN	1605
Rattus_norvegicus	ARVKMOVMTMALASLVGKAPDFNEEHLRRSLRITILAYSEEDTAMRATLFPPTQVEELLCNLN	1604
Canis_lupus_familiaris	ARVKMOVMTMSLASLVGKAPDFNEEYLRRSLRITILAYAEEDTAMQATPFPTQVEELLCNLN	1606
Equus_caballus	ARVKMOVMTMSLASLVGKAPDFNEEHLRRSLRITILAYAEEDTAMQSTPFPTQVEELLCNLN	1607
Bos_taurus	ARVKMOVMTMSLASLVGKAQDFNEEYLRRSLRITILAYAEEDTAMQTTPFPMQVEELLCNLN	1603
Homo_sapiens	ARVKMOVMTMSLASLVGRAPDFNEEHLRRSLRITILAYSEEDTAMQMTPFPTQVEELLCNLN	1604
Pan_troglodytes	ARVKMOVMTMSLASLVGRAPDFNEEHLRRSLRITILAYSEEDTAMQMTPFPTQVEELLCNLN	1604
Macaca_mulatta	ARVKMOVMTMSLASLVGRAPDFNEEHLRRSLRITILAYSEEDTAMQMTPFPTQVEELLCNLN	1603
Callithrix_jacchus	ARVKMOVMTMSLAFLVGRAPDFNEEHLRRSLRITILAYLEEDTAMQMTPFPTQVEELLCNLN	1603
Latimeria_chalumnae	SRVKMOVMTMSLASLVGKSSDFNEEVLRRSLRITILAYGEEDDEEMOPTLFPVQVYEMLCNLN	1611
Rhinatrema_bivittatum	ARVKMOVMTMSLASLVGKSPDFNEEYLRRSLRITILAYGEEDVDMQPTLFFPAQVDELLRNLN	1544
Xenopus_tropicalis	ARVKMOVMTMSLASLVGKSQDFNEEFLRRSLRITILAYAEEDDEEMOPTLFFPAQVDLLNLN	1594
1570.....1580.....1590.....1600.....1610.....1620	

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Pavo_muticus	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHTKRKCYTEAAMC	1670
Pavo_cristatus	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHTKRKCYTEAAMC	1670
Gallus_gallus	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHTKRKCYTEAAMC	1670
Anas_platyrhynchos	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHTKRKCYTEAAMC	1670
Chelonia_mydas	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHAKKKCYTEAAMC	1669
Mus_musculus	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKKKCFTEAAMC	1665
Rattus_norvegicus	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKRKCFTEAAMC	1664
Canis_lupus_familiaris	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQTS	PDRLRLTWLQNAEKHTKKKCYTEAAMC	1666
Equus_caballus	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQTS	PDRLRLTWLQNAEKHTKKKCYTEAAMC	1667
Bos_taurus	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKRKCYTEAAMC	1663
Homo_sapiens	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKKKCYTEAAMC	1664
Pan_troglodytes	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKKKCYTEAAMC	1664
Macaca_mulatta	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKKKCYTEAAMC	1663
Callithrix_jacchus	SILYDTVKMREFQEDPEMLMDLMYRIAKSYQAS	PDRLRLTWLQNAEKHTKRKCYTEAAMC	1663
Latimeria_chalumnae	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHSTRKCYTEAAMC	1671
Rhinatrema_bivittatum	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHKKKCYTEAAMC	1604
Xenopus_tropicalis	SILSDTVKMREFQEDPEMLMDLMYRIAKGYQTS	PDRLRLTWLQNAEKHVKKCFTEAAMC	1654

.....1630.....1640.....1650.....1660.....1670.....1680

*****.....**** *****:***** :***.*.*.**:***:***:***:***:

Pavo_muticus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDVLS	PDDEDGICSGRYFS	1730
Pavo_cristatus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDVLS	PDDEDGICSGRYFS	1730
Gallus_gallus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDVLS	PDDEDGICSGRYFS	1730
Anas_platyrhynchos	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDVLS	PDDEDGICSGRYFS	1730
Chelonia_mydas	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDIL	SPDEDGICSGRYFS	1729
Mus_musculus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDTL	SPDEDGVCSGRYFT	1725
Rattus_norvegicus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDTL	SPDEDGVCSGRYFT	1724
Canis_lupus_familiaris	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDTL	SPDEDGVCSGRYFT	1726
Equus_caballus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDTL	SPDEDGVCSGRYFT	1727
Bos_taurus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESAVSDDTL	SPDEDGVCSGRYFT	1723
Homo_sapiens	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESVVSDDTL	SPDEDGVCAGQYFT	1724
Pan_troglodytes	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESVVSDDTL	SPDEDGVCAGQYFT	1724
Macaca_mulatta	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESVVSDDTL	SPDEDGVCAGQYFT	1723
Callithrix_jacchus	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNVLEESVVSDDTL	SPDEDGVCVGYFT	1723
Latimeria_chalumnae	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNILEESAVSDDVLS	PDDEDGICSGKYFT	1731
Rhinatrema_bivittatum	LVHAAALVAEYLSMLEDHSYLPVGSVTFQNISSNALEESAVSDDIL	SPDEDGVCSGRYFS	1664
Xenopus_tropicalis	LVHAAALVAEYLGMLEDCSYLPVGSVTFQNISSNVIEESAVSDDIL	TPDDDGVCSGRYFS	1714

.....1690.....1700.....1710.....1720.....1730.....1740

*.***:***:***.*.....:*****:***:*****:***:*.***:***:..

Pavo_muticus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIIN	1790
Pavo_cristatus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIIN	1790
Gallus_gallus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIIN	1790
Anas_platyrhynchos	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIIN	1790
Chelonia_mydas	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIIN	1789
Mus_musculus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THDKLQKAFDNIIN	1785
Rattus_norvegicus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THDKLQKAFDNIIN	1784
Canis_lupus_familiaris	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THDKLQKAFDSIIS	1786
Equus_caballus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THDKLQKAFDSIIS	1787
Bos_taurus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THEKLQKAFDSIIS	1783
Homo_sapiens	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIVN	1784
Pan_troglodytes	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIVN	1784
Macaca_mulatta	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIVN	1783
Callithrix_jacchus	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THSKLQKAFDSIVN	1783
Latimeria_chalumnae	ESGLVGLLEQAAELFNTGGGLYETVNEVYKIVIPILEAHRDFRKLTL	THDKLKKSFSIIS	1791
Rhinatrema_bivittatum	ENGLVGLLEQAAELFNTAGLFETVNEVYKIVIPILEAHRDFRKLTL	THDKLQKAFDSVIK	1724
Xenopus_tropicalis	ENGLVGLLEQAAELFNTAIFYETVNEVYKIVIPVLEAHRDFRKLTL	THKKLQKAFDNIIE	1774

.....1750.....1760.....1770.....1780.....1790.....1800

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*.:*****:*. * ****:*.:****:*****:*.**** : ***
Pavo_muticus      KGQKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGEDSVEV 1850
Pavo_cristatus    KGQKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGEDSVEV 1850
Gallus_gallus     KGQKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGEDNVEV 1850
Anas_platyrhynchos KGQKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGEDAVEV 1850
Chelonia_mydas    KGQKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGEDAVEV 1849
Mus_musculus      KDHKRMFGTYFRVGFYGSRFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGAEFVEV 1845
Rattus_norvegicus KDHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGAEFVEV 1844
Canis_lupus_familiaris KGHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGEEFVEV 1846
Equus_caballus    KGHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEGFYGCFCGAEFVEV 1847
Bos_taurus        KGHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEAFYGCFCGAEFVEV 1843
Homo_sapiens      KDHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEAFYGCFCGAEFVEV 1844
Pan_troglodytes   KDHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEAFYGCFCGAEFVEV 1844
Macaca_mulatta    KDHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEAFYGCFCGAEFVEV 1843
Callithrix_jacchus KDHKRMFGTYFRVGFYGSKFGDLDEQEFVYKEPAITKLPEISHRLEAFYGCFCGAEFVEV 1843
Latimeria_chalumnae KGHKRMFGTYFRVGFYGSKFWDLDEQEFYIYKEPTITKLPEISHRLEGFYGCFCGEESVEV 1851
Rhinatrema_bivittatum KGHKRMFGTYFRVGFYGSKFGDLDEQEFYIYKEPAITKLPEISHRLEGFYGCFCGEDAVEV 1784
Xenopus_tropicalis KGQKRMFGTYFRVGFYGSKFGDLDEQEFYIYKEPTITKLPEISHRLESFYGCFCGDDAVEV 1834
.....1810.....1820.....1830.....1840.....1850.....1860

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****.***: *. * *****:*. * * * * ****:*. * *****: *. *
Pavo_muticus      IKDSAPVDKSKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRCRMYTTPFTMDGR 1910
Pavo_cristatus    IKDSAPVDKSKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRCRMYTTPFTMDGR 1910
Gallus_gallus     IKDSAPVDKSKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRCRMYTTPFTMDGR 1910
Anas_platyrhynchos IKDSAPVDKSKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRCRMYTTPFTMDGR 1910
Chelonia_mydas    IKDSTPVDKSKLHPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTMDGR 1909
Mus_musculus      IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1905
Rattus_norvegicus IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1904
Canis_lupus_familiaris IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1906
Equus_caballus    IKDSAPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1907
Bos_taurus        IKDSAPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRITYFEKNFNLRRFMYTTPFTLEGR 1903
Homo_sapiens      IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1904
Pan_troglodytes   IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1904
Macaca_mulatta    IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLAGR 1903
Callithrix_jacchus IKDSTPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRRFMYTTPFTLEGR 1903
Latimeria_chalumnae IKDSTPVDNTKLDPNKAYIQITFVEPYFDEYEMKDRITYFEKNFNLRRFMYTTPFTLDGR 1911
Rhinatrema_bivittatum IKDSAPVDKTKLDPNKAYIQITFVEPYFDEYEMKDRVITYFEKNFNLRCRMYTTPFTLDGR 1844
Xenopus_tropicalis IKDSVPVDKSKLDPNKAYIQITFVEPYFDEYEMKDRITYFEKNFNLRRFMYTTPFTLDGR 1894
.....1870.....1880.....1890.....1900.....1910.....1920

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Pavo_muticus      PRGELSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1970
Pavo_cristatus    PRGELSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1970
Gallus_gallus     PRGELSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1970
Anas_platyrhynchos PRGELSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1970
Chelonia_mydas    PRGDLSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1969
Mus_musculus      PRGELHEQHRRNTVLTTMHAFPIKTRIRVSQKEEFVLTPIEVAIEDMRKKTQELTAATN 1965
Rattus_norvegicus PRGELHEQHRRNTVLTTMHAFPIKTRIRVSQKEEFVLTPIEVAIEDMRKKTQELTAATN 1964
Canis_lupus_familiaris PRGDLHEQYRRNTILTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1966
Equus_caballus    PRGELHEQHRRNTVLTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1967
Bos_taurus        PRGELHEQYRRNTILTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1963
Homo_sapiens      PRGELHEQYRRNTVLTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1964
Pan_troglodytes   PRGELHEQYRRNTVLTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1964
Macaca_mulatta    PRGELHEQHRRNTVLTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1963
Callithrix_jacchus PRGELHEQYRRNTVLTTMHAFPIKTRISVQKEEFVLTPIEVAIEDMRKKTQELTAATN 1963
Latimeria_chalumnae PRGDLKDYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1971
Rhinatrema_bivittatum PRGDLSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1904
Xenopus_tropicalis PRGELSEQYKRNTILTTMHAFPIKTRINIIQKEEFILTPIEVAIEDMRKKTQELTAATN 1954
.....1930.....1940.....1950.....1960.....1970.....1980

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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:  ***.*:***:***** *****.*****.*****:***
Pavo_muticus      QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2030
Pavo_cristatus    QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2030
Gallus_gallus     QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2030
Anas_platyrhynchos QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2030
Chelonia_mydas    QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2029
Mus_musculus      QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2025
Rattus_norvegicus QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2024
Canis_lupus_familiaris QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2026
Equus_caballus    QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2027
Bos_taurus        QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2023
Homo_sapiens      QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2024
Pan_troglodytes   QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2024
Macaca_mulatta    QEPDDPKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2023
Callithrix_jacchus QVPPDPKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2023
Latimeria_chalumnae QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2031
Rhinatrema_bivittatum QEPDDAKMLQMVLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 1964
Xenopus_tropicalis KEPPDAKMLQMLLOGSVGATVNOGPLEVAQVFLAEIPADPKLYRHHNKLRLCFKEFIMRC 2014
.....1990.....2000.....2010.....2020.....2030.....2040

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****.*:***:*** :*:*** *:***.*:***:*****: :... :
Pavo_muticus      GEAVNKNKHLITADQREYQOELKKNYGKLNLRPMIERKIPELYKPVVKVNST-RESFR 2089
Pavo_cristatus    GEAVNKNKHLITADQREYQOELKKNYGKLNLRPMIERKIPELYKPVVKVNST-RESFR 2089
Gallus_gallus     GEAVNKNKHLITADQREYQOELKKNYGKLNLRPMIERKIPELYKPVVKVNST-RESFR 2089
Anas_platyrhynchos GEAVDKNKRLITADQREYQOELKKNYGKLNLRPMIERKIPELYNAVVKVHST-RESFH 2089
Chelonia_mydas    GEAVEKNKRLITADQREYQOELKKNYKLNLRPMIERKIPELYKPIVKVHSTTRDSFR 2089
Mus_musculus      GEAVEKNRRLITAEQREYQOELKKNYNKLRDSLPRMIERKIPELYKPIFRVDSQKRDSFH 2085
Rattus_norvegicus GEAVEKNRRLITAEQREYQOELKKNYNKLRDSLPRMIERKIPELYKPIFRVDSQKRDSFH 2084
Canis_lupus_familiaris GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPIFRVESQKRDSFH 2086
Equus_caballus    GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPIFRVESQKRDSFH 2087
Bos_taurus        GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPIFRVDSQKRDSFH 2083
Homo_sapiens      GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPIFRVESQKRDSFH 2084
Pan_troglodytes   GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPIFRVESQKRDSFH 2084
Macaca_mulatta    GEAVEKNKRLITADQREYQOELKKNYKLNLRPMIERKIPELYKPIFRVESQKRDSFH 2083
Callithrix_jacchus GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPIFRVESQKRDSFH 2083
Latimeria_chalumnae GEAVEKNKRLITVDQKEYQOELKKNYNKLNLRPMIERKIPELYKPIIKVCSERSDSCR 2091
Rhinatrema_bivittatum GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKPVVKVHSEKRESFR 2024
Xenopus_tropicalis GEAVEKNKRLITADQREYQOELKKNYNKLNLRPMIERKIPELYKNVVKTRGDVRLGLYH 2074
.....2050.....2060.....2070.....2080.....2090.....2100

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Pavo_muticus      NHSFRKYDAQTSQST-- 2104
Pavo_cristatus    NHSFRKYDAQTSQST-- 2104
Gallus_gallus     NHSFRKYDAQTSQST-- 2104
Anas_platyrhynchos NHSFKKYDAQSSQST-- 2104
Chelonia_mydas    NSSFKKYEANSQNI-- 2104
Mus_musculus      RSSFRKCETQLSQGS-- 2100
Rattus_norvegicus RSSFRKCETQLSQGS-- 2099
Canis_lupus_familiaris RSSFRKCETQLSQGS-- 2101
Equus_caballus    RSSFRKCETQLSQGS-- 2102
Bos_taurus        RSSFRKCETQLSQGS-- 2098
Homo_sapiens      RSSFRKCETQLSQGS-- 2099
Pan_troglodytes   RSSFRKCETQLSQGS-- 2099
Macaca_mulatta    RSSFRKCETQLSQGS-- 2098
Callithrix_jacchus RSSFRKCETQLSQGS-- 2098
Latimeria_chalumnae -SSLRRYETQSSVPQNS 2107
Rhinatrema_bivittatum -SSFRKYETQSSQNS-- 2038
Xenopus_tropicalis RTSFRKYDSQLSSSG-- 2089
.....2110.....

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