

# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep\_msa/TJPD Date: Tue Feb 1 14:45:50 2022

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Pavo_muticus	MSPTPGWPLVLGGFRRNWSPRDALARGLGPLOPHENQTAAGAGSRC	CAELISVAGIPPPGG	60
Pavo_cristatus	MSPTPGWPLVLGGFRRNWSPRDALARGLGPLOPHENQTAAGAGSRC	CAELISVAGIPPPGG	60
Gallus_gallus	MSPTPGWPLVAGRFRRNWSPRDALARGLGPPQPHGNQQTAGAGSRC	VELISVAGIPPPGS	60
Chelonia_mydas	-----	-----	
Mus_musculus	-----	-----	
Rattus_norvegicus	-----	-----	
Homo_sapiens	-----	-----	
Pan_troglodytes	-----	-----	
Macaca_mulatta	-----	-----	
Callithrix_jacchus	-----	-----	
Bos_taurus	-----	-----	
Orcinus_orca	-----	-----	
Equus_caballus	-----	-----	
Canis_lupus_familiaris	-----	-----	
Felis_catus	-----	-----	
Xenopus_tropicalis	-----	-----	
Rhinatrema_bivittatum	-----	-----	
	1.....10.....20.....30.....40.....50.....60		

Pavo_muticus	RRKDPRIPIVRLAHKGLRKAAPRSVTAATSPGAQLLP	GPQIPRGTSRNTPKAGQRKGPV	120
Pavo_cristatus	RRKDPRIPIVRLAHKGLRKAAPRSVTAATSPGAQLLP	GPQIPRGTSRNTPKAGQRKGPV	120
Gallus_gallus	RRKDPRIPIARQLAHKGLRKAAPRSVTAAINPGAQLLP	GPQIPRGTSRSAPKAGQRKGLV	120
Chelonia_mydas	-----	-----	
Mus_musculus	-----	-----	
Rattus_norvegicus	-----	-----	
Homo_sapiens	-----	-----	
Pan_troglodytes	-----	-----	
Macaca_mulatta	-----	-----	
Callithrix_jacchus	-----	-----	
Bos_taurus	-----	-----	
Orcinus_orca	-----	-----	
Equus_caballus	-----	-----	
Canis_lupus_familiaris	-----	-----	
Felis_catus	-----	-----	
Xenopus_tropicalis	-----	-----	
Rhinatrema_bivittatum	-----	-----	
	.....70.....80.....90.....100.....110.....120		

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Pavo_muticus	AAKKSWSRSAPPAPGLEPRHRSASELALPRLRWQVAAMEEMIWEQHTVTL	SKDPRRGFG	180
Pavo_cristatus	AAKKSWSRSAPPAPGLEPRHRSASELALPRLRWQVAAMEEMIWEQHTVTL	SKDPRRGFG	180
Gallus_gallus	AVKKSRSRSAPPAPGLEPRHCSAPALAFPHLHWQVAAMEEMIWEQHTVTL	SKDPRRGFG	180
Chelonia_mydas	-----	MEEMVIWEQHTVSLSKDPRRGFG	23
Mus_musculus	-----	MEELTIWEQHTATLYKDPRRGFG	23
Rattus_norvegicus	-----	MAVRFOVADMEELTIWEQHTATLYKDPRRGFG	32
Homo_sapiens	-----	MEELTIWEQHTATLSKDPRRGFG	23
Pan_troglodytes	-----	MAVRFOVADMEELTIWEQHTATLSKDPRRGFG	32
Macaca_mulatta	-----	MAVRFOVADMEELTIWEQHTATLFKDPRRGFG	32
Callithrix_jacchus	-----	MEELTIWEQHTATVSKDPRRGFG	23
Bos_taurus	-----	MAVRFOVLDMEELTIWEQYATISKDPRRGFG	32
Orcinus_orca	-----	MAVRFOVLDMEELTIWEQHTVTLISKDPRRGFG	32
Equus_caballus	-----	MAVRFOVSDMEELTIWEQHTATVCKDPRRGFG	32
Canis_lupus_familiaris	-----	MAVRFOVLDMEELTIWEQHTATLCRDPRRGFG	32
Felis_catus	-----	MAVRFOVLDMEEMIWEQHTATLCRDPRRGFG	32
Xenopus_tropicalis	-----	MAVRFOVSDMEEMIWEQYTVTLIRDPRRGFG	32
Rhinatrema_bivittatum	-----	MAVRFOVSDMEEMIWEQYTVTLNRDPRRGFG	32
	.....130.....140.....150.....160.....170.....180		

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Pavo_muticus      FAVSGGRDRPNRVTGDTAVIVSDVVSRGPAFGQLQRMQIVMVNGLSMENVSSSFAIQTL 240
Pavo_cristatus    FAVSGGRDRPNRVTGDTAVIVSDVVSRGPAFGQLQRMQIVMVNGLSMENVSSSFAIQTL 240
Gallus_gallus     FAVSGGRDRPNKVTGDTAVIVSDVVSRGPAFGQLQRRDQIVMVNGLSMENVSSSFAIQTL 240
Chelonia_mydas    IAISGGRDRPSGLAGDPSIVVSDVVPGGPAAGRLQTRDHIVMVNGLSMENVSSSFAIQAL 83
Mus_musculus      IAVSGGHDRAS-----GSVVVSDVVPGGPAEGRLQTDHIVMVNGVSVENVTSFAAIQIL 78
Rattus_norvegicus IAVSGGHDRAG-----GPVVVSDVVPGGPAEGRLQTDHIVMVNGVSVENVTSFAAIQIL 87
Homo_sapiens      IAISGGRDRPG-----GSMVVS DVVPGGPAEGRLQTDHIVMVNGVSMENATSAFAIQIL 78
Pan_troglodytes   IAISGGRDRPG-----GSMVVS DVVPGGPAEGRLQTDHIVMVNGVSMENATSAFAIQIL 87
Macaca_mulatta    IAISGGRDRPG-----GSVVVSDVVPGGPAEGRLQTDHIVMVNGVSMENATSTFVIQTL 87
Callithrix_jacchus IAISGGRDRPG-----GSVVVSDVVPGGPAEGRLQTDHIVMVNGVSVENVTSFAAIQIL 78
Bos_taurus        IAISGGRDRSG-----GSVVVSDVVPGGPAEGWLQTDQIVMVNGVSMESVTSTFAAIQIL 87
Orcinus_orca      IAISGGRDRPG-----GSVVVSDVVPGGPAEGRLQTDHIVMVNGVSMESVTSTFAAIQIL 87
Equus_caballus    IAISGSRDRSS-----GAVVIS DVVPGGPAEGRLQTDQIVMVNGVSMENMTSSFAIQIL 87
Canis_lupus_familiaris IAISGGRDRAS-----GSVVVSDVVPGGPADGRLQTDHIVMVNGVSMESVTSTFAAIQIL 87
Felis_catus       IAISGGRDRPS-----GSVVVSDVVPGGPAEGQLQTDHIVMVNGVSMESVTSTFAAIQIL 87
Xenopus_tropicalis IAISGGRDRPLGTDGDN SVIVSDVIRGGPADGRLQTRDRIVMVNGVSMENVSSSFAIQTL 92
Rhinatrema_bivittatum IAISGGKDRPIGHGDN SVIVSDVVRGGPADGRLQTRDRIVMVNGVSMENVASFAAIQTL 92
.....190.....200.....210.....220.....230.....240

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Pavo_muticus      KTCGKIANITLKROKKIHL- VS---KSSP-----ASPAATRRYDSDEDCDPRGEDPAL 290
Pavo_cristatus    KTCGKIANITLKROKKIHL- VS---KSSP-----ASPAATRRYDSDEDCDPRGEDPAL 290
Gallus_gallus     KTCGKIANITLKROKKIHL- VS---KSSP-----ASPAATRRYDSDEYDYPHGVDPAL 290
Chelonia_mydas    KTCGKLANITVKRPKKIQLP-VT---KTSQPLSDSLHSPNTVRYDSDEEFGYQGDESSP 139
Mus_musculus      KTCTKTANVTVKRPRRVQLP-AT---KASP-----AS-GHQLSDQ----- 113
Rattus_norvegicus KTCTKTANITVKRPRRVQLP-AT---KASP-----AS-GHQLSDQ----- 122
Homo_sapiens      KTCTKMANITVKRPRRIHL-AT---KASP-----SSPGRQDSDEDDGPQRV--- 121
Pan_troglodytes   KTCTKMANITVKRPRRIHL-AT---KASP-----SSPGRQDSDEDDGPQRV--- 130
Macaca_mulatta    KTCAKMANITVKRPRRIQLPTTT---KASP-----SGPGRQDSDEDDGPHRV--- 131
Callithrix_jacchus KTCTKMANITVKRPRRIQLP-AT---KASP-----SGPGRQDSDEDDGPRRL--- 121
Bos_taurus        KTCTKMANITVKRPRKVQLP-AT---KVT-----SAPGHQDSDEEDRLRCL--- 129
Orcinus_orca      KTCTKMANITVKRPRKVQLP-AT---KAT-----SGLGHQDSDEEDGPRRL--- 129
Equus_caballus    KTGTKMANITVKRPRKIQLP-AT---GAGG-----AGLGHQDS----- 122
Canis_lupus_familiaris KTCTKLANITVKRPRKIQLP-AT---KAGT-----SGRGRGLE----- 122
Felis_catus       KTCTKLANITVKRPRKIQLP-A---KASP-----SG-GHRVSD----- 120
Xenopus_tropicalis KSCAKTANVTVKRPRKIQIPVS---NSMHPASTYSSHTQKSSDPVFSDTSRREKDDGSDS 149
Rhinatrema_bivittatum KSCAKTANVTVKRPRKIQIPITKLSQSSNPPVSGSPQHSASVGHYGSNDGDYGHSEQAAS 152
.....250.....260.....270.....280.....290.....300

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Pavo_muticus      RSA-----SQHRSR--DDLHDNQGYDGDSSSERSSGHHQDDRRHHK-SS-RSRRRSQD 339
Pavo_cristatus    RSA-----SQHRSR--DDLHDNQGYDGDSSSERSSGHHQDDRRHHK-SS-RSRRRSQD 339
Gallus_gallus     RSA-----SQHRSR--DDLHDNQGYDGDSSSERSSGYHRDDRRHHK-AS-RSRRRSQD 339
Chelonia_mydas    RSTGKGRYRDSYNRSRPQDDADYSRGYDGDSSSERSSGHYRDNSDNRQVS-RSRRRSQD 198
Mus_musculus      -----EEADHGRGYEGDSSS--GSGRSWGRSRRS--RAGRRGRV 149
Rattus_norvegicus -----EEADHGRGYEGDSSS--GSGRSWGRSRRS--RAGRRVRM 158
Homo_sapiens      -----EEVDQGRGYDGDSSS--GSGRSWGRSRRP--RPGRRGRA 157
Pan_troglodytes   -----EEVDQGRGYDGDSSS--GSGRSWGRSRRP--RPGRRGRA 166
Macaca_mulatta    -----EEVDQGGYDGDSSS--GSGRSWGRSRRQ--RPGRRGRA 167
Callithrix_jacchus -----EDGDQGRGYDGDSSS--GSGRSWDGRSRRP--RPGRRGQA 157
Bos_taurus        -----EEADHGRGYEGDTSS--GSGRSWGRSRRP--RAGRRSRA 165
Orcinus_orca      -----DEADHGQGYEGDTSS--GSGHSWGRSRRP--RTGRRSQA 165
Equus_caballus    -----DEADRGRGYDGDTS--GSGHSWGRSRRP--RGRRSRA 158
Canis_lupus_familiaris -----EEADCGQGYDGDTS--GSGRSWGRSRRP--RTGRRNQA 158
Felis_catus       -----GEADHGQGYDGDTS--GSGRSWGRSRRQ--RTGRRSRA 156
Xenopus_tropicalis PLPWRG---RYESSNQEPPE-DTARGYEGDSSSGRSSQGSFSSSRHTRHR-RGRTVGSE 204
Rhinatrema_bivittatum PTWSSG---REHRYGSYPDDGDHNRGYDGDSSSERSSSEHYRSQNNYHPRQSSRERRPSQD 209
.....310.....320.....330.....340.....350.....360

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Species	Sequence	Position
Pavo_muticus	SS-----HWRRSPDSGSEHRAYSRHRSSANGFGHEGD-----	370
Pavo_cristatus	SS-----HWRRSPDSGSEHRAYSRHRSSANGFGHEGD-----	370
Gallus_gallus	SS-----HWRRSPDSGSEHRCYSRHRSTNGFGHAGD-----	370
Chelonia_mydas	GS-----NRRQSQDSGSEERQSYHRQRSTNGYGHEED-----	229
Mus_musculus	GS-----HGRRSSGGGSE-----	162
Rattus_norvegicus	GS-----HGRRSSCGGSE-----	171
Homo_sapiens	GS-----HGRRSPGGGSE-----	170
Pan_troglodytes	GS-----HGRRSPGGGSE-----	179
Macaca_mulatta	SS-----HGRRSPGGDSE-----	180
Callithrix_jacchus	GS-----HRRRSPGGGPE-----	170
Bos_taurus	SS-----RGRRSPGGGSE-----	178
Orcinus_orca	SS-----HGRRSPSGGSE-----	178
Equus_caballus	-----GGSE-----	162
Canis_lupus_familiaris	GS-----RGRRSPGGNSE-----	171
Felis_catus	GS-----HGRRSPGGRSE-----	169
Xenopus_tropicalis	GVDYAKRKVGRETIVSSGSETGRRSRRRRESGSDVIDSSSEARGYYSKRKETGSEMGGSGSE	264
Rhinatrema_bivittatum	GS--HERPYRRHSQDSGSGYGQNGRYSANG-----VGYDQDDG-----	245

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Pavo_muticus	-----ADGLALVSGFKRLPRREVPMPKPIITSVLVKKKEDEEYGLKLGSQLFIKHIVESGLA	425
Pavo_cristatus	-----ADGLALVSGFKRLPRRDVPMKPITSVLVKKKEDEEYGLKLGSQLFIKHIVESGLA	425
Gallus_gallus	-----TNGLALVSGFKRLPRRDVPMKPITSVLVKKKEDEEYGLKLGSQLFIKHIVESGLA	425
Chelonia_mydas	-----TNGVLVSGGFKRLRPQEVPMKPIRSVLVKQKEGEYGLKLGSQIFIKHITETGLA	284
Mus_musculus	-----ANGLDLVSGYKRLPKQDVLMRPLKSVLVKRRNSEEFGVKLGSQIFIKHITESGLA	217
Rattus_norvegicus	-----ANGLDLVSgykrlpkQdvlmrplksvLvkrRNSEefgVklGSQIfIkHiTESGLA	226
Homo_sapiens	-----ANGLALVSGFKRLPRODVQM KP VK SV LV KR RD SE EF G V KL GS Q I F IK H IT D S GL A	225
Pan_troglodytes	-----ANGLALVSGFKRLPRODVQM KP VK SV LV KR RD SE EF G V KL GS Q I F IK H IT D S GL A	234
Macaca_mulatta	-----ANGLALVSGFKRLPRODVQM KP VK SV LV KR RD SE EF G V KL GS Q I F IK H IT D S GL A	235
Callithrix_jacchus	-----ANGLALVSGFKRLPRODVQM KP VK SV LV KR RD SE EF G V KL GS Q I F IK H IT DT GL A	225
Bos_taurus	-----ANGLALVSGFKRLPRODVQMRPVKSVLVKRRESDDFGVKLG SQ IF IK H IT DS GL A	233
Orcinus_orca	-----ANGLALVSGFKRLPRODMRMPVKSVLVRRRDSDDFGVKLG SQ IF IK H IT ES GL A	233
Equus_caballus	-----ANGLALVSGFKRLPRODVQMRPVKSVLVRRRTSDEF GVKLG SQ IF IK H IT DS GL A	217
Canis_lupus_familiaris	-----ANGLALVSGFKRLLRQDVHMRPVKSVLVRRTESEEF GVT LG SQ IF IK H IT DS GL A	226
Felis_catus	-----ANGLALVSGFKWLPRODVQMRPVKSVLVRRRDSEEF GVT LG SQ IF IK H IT ES GL A	224
Xenopus_tropicalis	TIGERYQNGLELVSGFKRLPIQDVPAKPIKA VL VKRAENOEYGLKLGSQIFIKHITESGLA	324
Rhinatrema_bivittatum	-----TNGLALVSGFKRLPSQDVPMPKI K SV LV KH NE SE E Y GL KL GS Q I F IK H IT DT GL A	300
	.....430.....440.....450.....460.....470.....480	

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Pavo_muticus	ARRSSLQEGDLILKINGVASEDMSLADTQRLLIEQT	EGILTLLVLDRDHR	OFLNIP-NMED	484			
Pavo_cristatus	ARRSSLQEGDLILKINGVASEDMSLADTQRLLIEQT	EGILTLLVLDRDHR	OFLNIP-NMED	484			
Gallus_gallus	ARRSSLQEGDLILKINGVASEDMSLADTQRLLIEQT	EGILTLLVLDRDHR	OFLNIP-NMED	484			
Chelonia_mydas	AKDSSLHEGDLILKINGVTSENLSLADTRMLIERSEGT	LRLLVFRDNRO	FVNIP-QVRD	343			
Mus_musculus	ARNHGLQEGDLILQINGVSSANLSLSDTRRLIEKSEGEL	TLLVLDRSGO	FLVNIPP	AVSD 277			
Rattus_norvegicus	ARNRGLQEGDLILQINGVSSANLSLSDTRRLIEKSEGQL	TLLVLDRSGO	FLVNIPP	AVSD 286			
Homo_sapiens	ARHRGLQEGDLILQINGVSSQNLSLNDTRRLIEKSEGL	SLLVLDRDG	OFLVNIPP	AVSD 285			
Pan_troglodytes	ARHRGLQEGDLILQINGVSSQNLSLNDTRRLIEKSEGL	SLLVLDRDG	OFLVNIPP	AVSD 294			
Macaca_mulatta	ARHRGLHEGDLILQINGVSSQNLSLSDTRRLIEKSEGL	SLLVLDRDG	OFLVNIPP	AVSD 295			
Callithrix_jacchus	AQNRGLQEGDLILQINGVSSQNLSLSDTRRLIEQSEGTL	TLLVLRGHG	OFLVNIPP	AVSD 285			
Bos_taurus	AQNSGLQEGDLILQINGVSSENLSLSDTRQLIEKSEGKL	TLLVLDRDG	OFLVNIPP	AVSD 293			
Orcinus_orca	AQNSRLQEGDLILQINGVSSENLSLSDTRQLIEKSEGKL	TLLVLDRDG	OFLVNIPP	AVSD 293			
Equus caballus	ARNRGLREGDLVLQINGVSSENLSLSDTRRLIEKSEGKL	TLLVLDRDG	OFLVNIPP	AVSD 277			
Canis_lupus_familiaris	ARNRGLQEGDLILQINGVSSENLSLSDTRRLIEKSEGKL	TLLVLDRDG	OFLVNIPP	AVSD 286			
Felis_catus	ARNRGLREGDLILQINGVSSENLSLSDTRRLIEKSEGKL	TLLVLDRDG	OFLVNIPP	AVSD 284			
Xenopus_tropicalis	AQEKALQEGDLILKINGVTSENMSLADTRRLIEKSRGKL	TLTVLRDNRO	FLVNIP-EVRD	383			
Rhinatrema_bivittatum	AQDSSLQEGDLILKINGVAEENMSLADTKRLIERSEGL	KLTLTVLRDNRO	FLVNIP-QVTD	359			

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      :*      *      :*** : *      . . .      : :      .
Pavo_muticus      YQSD--SSRMDDISDIDSDLSHPPS-PKTSF-----RLPAAARMNSPEERRR-PSRNAA      534
Pavo_cristatus    YQSD--SSRMDDISDIDSDLSHPPS-PKTSF-----RLPAAARMNSPEERRR-PSRNAA      534
Gallus_gallus     YQSD--SSRMDDISDIDSDLSHPPS-PKTSF-----RLPAAARMNSPGERRR-SSRNAA      534
Chelonia_mydas    SDS--SSRLDDISDIGSELSHPPP-AQSPQ-----RAPEASRTNSLSEGSQ-LSRETA      393
Mus_musculus      SDS----SLMEDISDLTSELSQLAPP-SHVPPPLKGRSPEDSQTDSPVETPQPRRRERS      332
Rattus_norvegicus SDS----SLMEDISDLTSELSQLAPP-SHIPPPPLKSRSPEDSQTDSPVETPQPRRRERS      341
Homo_sapiens      SDS----SPLEDISDLASELSQAPP-SHIPPPPRHAQRSPEASQTDSPVESPR-LRRESS      339
Pan_troglodytes   SDS----SPLEDISDLASELSQAPP-SHIPPPPRHAQRSPEASQTDSPVESPR-LRRESS      348
Macaca_mulatta    SDS----SPLEDISDLTSELSQLAPP-SHIPPPPRHAQRSPEASQTDSPVESPR-LRRESS      349
Callithrix_jacchus SES----SLLEDISDLASELSQAPP-SHIPPPPRHAQRSPEASQTDSPVESPR-LQRESS      339
Bos_taurus        SDS----SLLEDISDLGSELSQLAPP-SHIPPPPPHGGQSPDTSRTNSPVESHRLPRESS      347
Orcinus_orca      SDS----SLLEDISDLGSELSQLAPP-SHVPPPPHGGQSPDASRASSPMESPO-LQEGS      347
Equus_caballus     SDS----SLMEDISELGSEVSQLAPP-SHIPPPPRHGRWSPDGRNSPVESPR-LRREGS      331
Canis_lupus_familiaris SDS--SSFLDDISALGSELSQLAPP-SHVPPPPPHAQRLSDGTDSPRDSPP-LRRENS      342
Felis_catus       SDS----SLLDDISDLGSETSQLAPP-SHVPPPPHVRSSDASWTDSPESPP-LWRDMS      338
Xenopus_tropicalis SESEGRSSPREIDISEIGSEDFPPPSSEAPPPPPAHQQISTESD--GSASEEQG-MNGSEA      440
Rhinatrema_bivittatum SDSE-RSSRIEDISDLGSHYSPPSLPPALPLDHNAPRPTLARMAPKEERR-INGEPL      417
      .....550.....560.....570.....580.....590.....600

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Pavo_muticus      TDTNMDDALSHDLL--EAVEQDGHSPSRPSARAAPK--DGYSPPSRVVQFVKARSVGL      590
Pavo_cristatus    TDTNMDDALSHDML--EAVEQDGRHSPSRPSARAAPK--DGYSPPSRVVQFVKARSVGL      590
Gallus_gallus     TDTNMDDALSRDML--EAVEQDGRHSPSRPSARAAPK--DGYSPPSRVVQFVKARSVGL      590
Chelonia_mydas    AAVQENDAPLPDSL--EPAEESAYSVSYDHPAARASEE--DGYSPPDAKIVRFVKANTIGL      449
Mus_musculus      VNSRAIAEP-----ESPGESRYDIYR-VPSSQSLD--RGYSPPTRVVVFPGKASIGL      382
Rattus_norvegicus VDSRAIAEP-----ESPGESRYDIYR-VPSSQSLD--RGYSPPTRVVVFPGKASIGL      391
Homo_sapiens      VDSRTISEPDEQRS--ELPRESSYDIYR-VPSSQSMED--RGYSPPTRVVVFRLKGKISIGL      394
Pan_troglodytes   VDSRTISEPDEQRS--ELPRESSYDIYR-VPSSQSMED--RGYSPPTRVVVFRLKGKISIGL      403
Macaca_mulatta    VDSRTISEPGEQQA--ELPRESSYDIYR-VPSSQSMED--RGYSPPTRVVVFRLKGKISIGL      404
Callithrix_jacchus VGSRTISEP-----EFPRESSYDMYR-VPSSQSMED--RGYSPPTRMVRFRFKGKISIGL      389
Bos_taurus        VDSRTASEP-----DSPPRPNYDIYR-VPSSQSVED--HGYSPPSHVVRFFKGTNIGL      397
Orcinus_orca      VDSRTASEP-----DSPPRQRCDMHS-VPSSQSVED--HGYSPPSRVVVFRLKGANIGL      397
Equus_caballus     GDSRSISEP-----DSARPRSYDIYR-VPSSQSVED--RGYSPPSRVIRFKGASIGL      381
Canis_lupus_familiaris LDSRTISEP-----DAPRHSSYDIYR-VPSSQSAED--RGYSPPSRVVFRFKGTTIGL      392
Felis_catus       VDSRTISET-----DSPPRSSYDIYR-VPSSQSRED--RGYSPPDWVRVFPGKSTIGL      388
Xenopus_tropicalis VQKMENSKVEIAVKNEEAQVSTYREESVNPNNNTREDLRTGYSPDARVIOFMKEKISIGL      500
Rhinatrema_bivittatum TAVELNSTPVYAPR--DALQDTGYRISYNVPSIGGSEEPQSGYSPDPKLVQFMKGGSIGL      475
      .....610.....620.....630.....640.....650.....660

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Pavo_muticus      RLAGGNDVGIFVSGVQEGSPADSGIEEGDQILQVNCTSFQNLTREEAVQYLMRLPPGED      650
Pavo_cristatus    RLAGGNDVGIFVSGVQEGSPADSGIEEGDQILQVNCTSFQNLTREEAVQYLMRLPPGED      650
Gallus_gallus     QLAGGNDVGIFVSSVQEGSPADSGIEEGDQILQVNDTSFQNLTREEAVQHLMLKLPAGED      650
Chelonia_mydas    RLAGGNDVGIFVAGVQEGSPADSEGIKEGDQILQVNDTSFQSLTREDAVQYLLSLPQGEE      509
Mus_musculus      RLAGGNDVGIFVSGVQAGSPADGGQIQEGDEILQVNGMPFRNLTREEAVQFLLGLPPGED      442
Rattus_norvegicus RLAGGNDVGIFVSGVQAGSPADGGQIQEGDEILQVNDMPFRNLTREEAVQFLLGLPAGED      451
Homo_sapiens      RLAGGNDVGIFVSGVQAGSPADGGQIQEGDQILQVNDVFPFQNLTREEAVQFLLGLPPGEE      454
Pan_troglodytes   RLAGGNDVGIFVSGVQAGSPADGGQIQEGDQILQVNDVFPFQNLTREEAVQFLLGLPPGEE      463
Macaca_mulatta    RLAGGNDVGIFVSGVQAGSPADGGQIQEGDQILRVNDVFPFQNLTREEAVQFLLGLPPGEE      464
Callithrix_jacchus RLAGGNDVGIFVSGVQAGSPADGGQIQEGDQILQVNDVFPFQNLTREEAVQFLLALPPGEE      449
Bos_taurus        RLAGGNDVGIFVSGVQAGSPADGGQILEGDEILQVNDTPFQNLTREEAVNFFLLGLPVGEE      457
Orcinus_orca      RLAGGNDVGIFVSGVQAGSPADGGQIQEGDEILQVNDTPFRNLTREEAVQFLLGLPPGEE      457
Equus_caballus    RLAGGNDVGIFVSGVQADSPADGGQIQEGDEILQVNDTPFRNLTREEAVQFLLALPPGEE      441
Canis_lupus_familiaris RLAGGNDVGIFVSGVQAGSPADGGQIQEGDQILQVNDVFPFRNLTREEAVQFLLALPLGEE      452
Felis_catus       RLAGGNDVGIFVSGVQEGSPADGGQIQEGDEILQVNDVFPFRNLTREEAVQFLLGLPPGED      448
Xenopus_tropicalis RLAGGNDVGIFVAAVQAASPAAREGMKEGDQILQVNDTSFHNLTREDAVQYLMGLPQNE      560
Rhinatrema_bivittatum RLAGGNDVGIFVAAVQDGSAPAREGIKEGDQILQVNETSFQNLTREEAVQYLMTLPOYEE      535
      .....670.....680.....690.....700.....710.....720

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Pavo_muticus      VTLRIQSKQDIYRKMVSSNVGDSFYIRTHFDYEKDTPSGLSFVRGDFVHVLDTTYRG--- 707
Pavo_cristatus    VTLRIQSKQDIYRKMVSSNVGDSFYIRTHFDYEKDTPSGLSFVRGDFVHVLDTTYRG--- 707
Gallus_gallus     VTLRIQSKQDIYRKMISSNVGDSFYIRTHFDYEKDTPSGLSFVRGDFVHVLDTMYRG--- 707
Chelonia_mydas    VVLLTQRKQDIYRKMVSNVRDSFHIRTHFDYEKDTPSGLSFTRGEVVFHVLDTMYRG--- 566
Mus_musculus      MELVTQSKQDIFKKMVQSRVGDSFYIRTHFELEPSPPYGLGFTRGDFVHVVDITLYPGSGP 502
Rattus_norvegicus VELVTQSKQDIFRKMVQSRVGDSFYIRTHFELEPSPPYGLGFTRGDFVHVVDITLYRGSGS 511
Homo_sapiens      MELVTQRKQDIFWKMVQSRVGDSFYIRTHFELEPSPPSGLGFTRGDFVHVLDTLHPGPGQ 514
Pan_troglodytes   MELVTQRKQDIFWKMVQSRVGDSFYIRTHFELEPSPPSGLGFTRGDFVHVLDTLHPGPGQ 523
Macaca_mulatta    MELVTQRKQDIFWKMVQSRMGDSFYIRTHFELEPSPPSGLGFTRGDFVHVLDTLYPGPEQ 524
Callithrix_jacchus MELLTQRKQDIFWKMVQSRVGDSFYIRTHFELEPSPPSGLGFTRGDFVHVLDTLYPGPGQ 509
Bos_taurus        VELVTQRKQDIFQKMVRSGLGDSFYIRTHFEMEPPSPPSGLGFTRGDFVHVLDTLYPGPGQ 517
Orcinus_orca      VELVTQRKQDIFRKMVQSGVGDSFYIRMHFEMEPPSPPSGLGFTRGDFVHVLDTLYPGPGQ 517
Equus_caballus    VELVTQRKQDIFRKMVQSRVGDSFYIRTHFELEASPPSCLGFTRGDFVHVVDITLYPGPGQ 501
Canis_lupus_familiaris VELVTQRKQDIFRKMVQSRVGDSFYIRTHFELEASPPSGLGFTRGDFVHVLDTLCPGPGP 512
Felis_catus       VELVTQRKQDIFRKMVQSRVGDSFYIRTHFELEASPPSGLGFTRGDFVHVLDTLYPGPGQ 508
Xenopus_tropicalis VIFLTQGKEDIYRKMIKSNVGDSFYIRTHFDYEDAPSGLSFTRGEIFHIVDTMYRG--- 617
Rhinatrema_bivittatum IIFLTQGKQDIYRKMVSNVGDSFHIRTHFDHSETPSGLSFTRGEVVFHVVDITMYRG--- 592
.....730.....740.....750.....760.....770.....780

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Pavo_muticus      -----KLGSWLAVRVGRDLQEQEKGIIPNQSRAEQFASLESVLKAT-----PGTNPSSGAR 757
Pavo_cristatus    -----KLGSWLAVRVGRDLQEQEKGIIPNQSRAEQFASLESVLKAT-----PGTNPSSGAR 757
Gallus_gallus     -----KLGSWLAVRMGRDLQEQEKGIIPNQSRAEQFASLESVLKAT-----PGTNPSSGAR 757
Chelonia_mydas    -----KLGSWLAVRMGRDLQELDKGIIPNRSRAEQFASLESVLKAT-----SVASSSSGAR 616
Mus_musculus      GHGHS SHGGLWLAARMGRDLREQERGVIIPNQSRAEQLASLEAAQRAAGVGPASVGSNPR 562
Rattus_norvegicus GHGHS SHGGLWLAARMGRDLREQERGVIIPNQSRAEQLASLEAAQRAAGLGPASTGSNPR 571
Homo_sapiens      SH---ARGGHWLAVRMGRDLREQERGIIIPNQSRAEQLASLEAAQRAVGVGPSSAGSNAR 571
Pan_troglodytes   SH---ARGGHWLAVRMGRDLREQERGIIIPNQSRAEQLASLEAAQRAVGVGPSSAGSNAR 580
Macaca_mulatta    SH---VRGGHWLAVRMGRDLREQERGIIIPNQSRAEQLASLEAAQRAVGIGPGSSVGSNAR 581
Callithrix_jacchus SH---ARGGHWLAVRMGRDLREQERGIIIPNQSRAEQLASLEAAQRAVGAGPGSSAGSNAR 566
Bos_taurus        SP---TRGGQWLAVRMGRDLREKERGIIPNQSRAEQLASLEAAQRAVGVIPGASVGSNSR 574
Orcinus_orca      SH---ARGGHWLAVRMGRDLREKERGIIPSQRAEQLASLEAAQRAVGVGPASAGSSTR 574
Equus_caballus    SH---SRGGHWLAVRVGRDLREQERGIIIPNQSRAEQLASLEAAQALGTGPATAASNTR 558
Canis_lupus_familiaris SG---ARGTHWLAVRMGRDLREQERGIIIPNQSRAEQLASLEAAQRAVGAGPGASVGSNAR 569
Felis_catus       SR---ARGGHWLAARMGRDLREQERGIIIPNQSRAEQLASLEAAQRAVGAGPGASVGSNAR 565
Xenopus_tropicalis -----KIGSWLAVRVARDLKEKEKGIIPNNNRAEQYASLEPVLPK-----QSSSSGQR 664
Rhinatrema_bivittatum -----KLGSWLAVRMGRDLQELKKGIIPNKSRAEQIASLETVLKPS-----ISSSSGPR 641
.....790.....800.....810.....820.....830.....840

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Pavo_muticus      AEFWKLRLGLR-GAKKM-LRKSREDLSALTKQGHYPYERVVVLKEASFKRPPVILGPITDI 815
Pavo_cristatus    AEFWKLRLGLR-GAKKM-LRKSREDLSALTKQGHYPYERVVVLKEASFKRPPVILGPITDI 815
Gallus_gallus     AEFWKLRLGLR-GAKKT-LRKSREDLSALTKQGHYPYERVVVLKEASFKRPPVILGPITDI 815
Chelonia_mydas    AEFWKLRLGLR-GAKKN-LRKSREDLSALTKQGHYPYERVVVLREANFKRPVILGPISDI 674
Mus_musculus      AEFWRLRLGLRRGTTKKASTQSRREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 622
Rattus_norvegicus AEFWRLRLGLRRGAKKTMTQSRREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 631
Homo_sapiens      AEFWRLRLGLRRGAKKT-TQSRREDLSALTRQGRYPYERVVVLREASFKRPPVILGPVADI 630
Pan_troglodytes   AEFWRLRLGLRRGAKKT-TQSRREDLSALTRQGRYPYERVVVLREASFKRPPVILGPVADI 639
Macaca_mulatta    AEFWRLRLGLRRGAKKT-SQSRREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 640
Callithrix_jacchus AEFWRLRLGLRRGAKKT-TQSRREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 625
Bos_taurus        AEFWRLRLGLRRGAKKT-THRSREDLSALTKQGHYPYERVVVLREASFKRPPVILGPVADI 633
Orcinus_orca      AEFWRLRLGLRRGAKKT-THRSREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 633
Equus_caballus    AEFWRLRLGLRRGAKKT-TQSRREDLSALTKQGHYPYERVVVLREASFKRPPVILGPVADI 617
Canis_lupus_familiaris AEFWRLRLGLRRGAKKS-TQSRREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 628
Felis_catus       AEFWRLRLGLRRGAKKT-THRSREDLSALTRQGHYPYERVVVLREASFKRPPVILGPVADI 624
Xenopus_tropicalis AEFWKLRLGLR-GAKKL-LRKSREDLAALSKKIKYPPYERVVVLREASFKRPPVVMGPITDI 722
Rhinatrema_bivittatum AEFWKLRLGLR-GAKKN-LRKSREDLAALTSQAKYPPYERVVVLREASFKRPPVVLGPITDI 699
.....850.....860.....870.....880.....890.....900

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Pavo_muticus      AMQKLSTEQPELFEIAPSVPR-DGAS SKVIKLD SVRQIAEKDKHALLDITPSAVERLNYV 874
Pavo_cristatus    AMQKLSTEQPELFEIAPSVPR-DGAS SKVIKLD SVRQIAEKDKHALLDITPSAVERLNYV 874
Gallus_gallus     AMQKLSTEQPELFEIAPSVPR-DGAS SKVIKLD TVRQIAEKDKHALLDITPSAVERLNYV 874
Chelonia_mydas    AMEKLSAELPDEFEDIAQSVAR-NEAS SKVIKLD SVRQIAEKDKHALLDITPSAVERLNYV 733
Mus_musculus      AMKKLTTEMPPEEFIEAESMSR-TDSP SKIIKLD TVRVIAERDKHALLDVTPSAIERLNYV 681
Rattus_norvegicus AMKRLTTEVPEQFEIAESVSR-TDSP SKIIKLD TVRVIAERDKHALLDVTPSAIERLNYV 690
Homo_sapiens      AMQKLTAEMPDQFEIAETVSR-TDSP SKIIKLD TVRVIAEKDKHALLDVTPSAIERLNYV 689
Pan_troglodytes   AMQKLTAEMPDQFEIAETVSR-TDSP SKIIKLD TVRVIAEKDKHALLDVTPSAIERLNYV 698
Macaca_mulatta    AMQKLTAEMPDQFEIAETVSR-TDSP SKIIKLD TVRLIAEKDKHALLDVTPSAIERLNYV 699
Callithrix_jacchus AMQKLTAEMPDQFEIAETVSR-TDSP SKIIKLD TVRVIAEKDKHALLDVTPSAIERLNYV 684
Bos_taurus        AMQKLTAEMPDKFEIAESVSR-TESPSKIIRLD TVRVIAEKDKHALLDVTPSAIERLNYV 692
Orcinus_orca      AMQKLTAEMPDEFIEAESMSR-TDSP SKIIKLD TVRVIAEKDKHALLDVTPSAIERLNYV 692
Equus_caballus     AMQKLTAEMPDEFIEAESVSR-TDSP SKVIKLD TVRVIAEKDKHALLDVTPSAIERLNYV 676
Canis_lupus_familiaris AMQKLTAEMPDQFEIADSVLR-TDSP SKIIKLD TVRVIAEKNKHALLDVTPSAVERLNYV 687
Felis_catus       AMQKLTAEMPDQFEIADSVSR-TDSP SKIIKLD TVRVIAENNKHALLDVTPSAVERLNYV 683
Xenopus_tropicalis AHQKLCADLPQEFESAESVTRDGGGT SKVIKLDVVREIAAKNKHALLDITPTAVEHLNYM 782
Rhinatrema_bivittatum ALQKLSTEMPQFEVAESVPR-AEGS SKVIKLQVVRQIAEKNKHALLDITPTAVEHLNYV 758
.....910.....920.....930.....940.....950.....960

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Pavo_muticus      QYYPVVVFCEPESRQGIKAMROWLAPDSRNSSRRLYAQASKMKKHCSHLFTATISLSGSG 934
Pavo_cristatus    QYYPVVVFCEPESRQGIKAMROWLAPDSRNSSRRLYAQASKMKKHCSHLFTATISLSGSG 934
Gallus_gallus     QYYPVVVFCEPESRQGIKAMROWLAPDSRKSSRRLYAQASKMKKYCSHLFTATISLSGSG 934
Chelonia_mydas    QYYPVVVFCEPDSRQGIKAMROWLAPGSKSSRRLYAQAVKMKKNYSYLFATAISLGGST 793
Mus_musculus      QYYPVIVFCAPESRPALKALREWLAPASRRSSRRLYAQAQKLQKHSGLHFTATIPLHGTS 741
Rattus_norvegicus QYYPVVVFCAPESRSALKALREWLAPASRRSSRRLYAQAQKLQKHSGLHFTATIPLNGTS 750
Homo_sapiens      QYYPVIVVFIPESRPALKALROWLAPASRRSTRRLYAQAQKLKRKHS SHLFTATIPLNGTS 749
Pan_troglodytes   QYYPVIVVFIPESRPALKALROWLAPASRRSTRRLYAQAQKLKRKHS SHLFTATIPLNGTS 758
Macaca_mulatta    QYYPVIVVFMPE SRPALKALROWLAPASRRSTRRLYAQAQKLKRKHS SHLFTATIPLNGTS 759
Callithrix_jacchus QYYPVIVVFPESRPALKALROWLAPASRRSSRRLYAQAQKLKRKHS SHLFTATIALNGTS 744
Bos_taurus        QYYPVIVVFCVPESRTALKALROWLAPASRRSSRRLYAQAQKLKRKYS DHLFTATIPLQGTS 752
Orcinus_orca      QYYPVIVVFCVPESRTALKALROWLAPASRRSSRRLYAQAQKLKRKHS DHLFTATIPLQGTS 752
Equus_caballus     QYYPVIVVFCVPESRAALKALRWLAPASRRSTRRLYAQAQKLKRKHS DHLFTATVPLRGTS 736
Canis_lupus_familiaris QYYPVIVVFCAPESRAALKALROWLAPASRRSARRLYAQAQKLKRKHS EHLFTATIPLRGTS 747
Felis_catus       QYYPVIVVFCAPESRVALKALROWLAPASRRSTRRLYAQAQKLKRKHS EHLFTATIPLHGTS 743
Xenopus_tropicalis QFYPIVVF CNPENRQGVKAMRKWLLPDSRKSSRRLYAQAVKQRKNNFHLFTATINLSGAS 842
Rhinatrema_bivittatum QFYPIVVF CNPENKQGVKAMROWLCPESKKSSRRLYTQALKMRKYCSHLFTATINLSGAS 818
.....970.....980.....990.....1000.....1010.....1020

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Pavo_muticus      NSWYEEIKGIIRTQQGQPIWTTAEHVDAALDGLLELNPPSRAASGYLTCD SHANS DYDD 994
Pavo_cristatus    NSWYEEIKGIIRTQQGQPIWTTAEHVDAALDGLLELNPPSRAASGYLTCD SHANS DYDD 994
Gallus_gallus     NAWYEEIKDIIRTQQSQPIWTTAEHVDVALEDSDLNPPSRAASGYLTCD SHANS DYDD 994
Chelonia_mydas    NTWYQSLKEIIRAQQARPIWTTAEQVDASPEEGLDLNQQRSASTGDLTCD SCANS DYED 853
Mus_musculus      DSWYQEVKAVIQQQQARPIWTTAEDQLNSSSED-LDLPGHGLAASSGDLSCDSRTNSDYED 800
Rattus_norvegicus DSWYQEVKAVIQQQQARPIWTTAEDQLNGSSED-LDLPGHGLAASSGDLSCDSRANSDYED 809
Homo_sapiens      DTWYQELKAIIREQQTRPIWTTAEDQLDGSLEDNLDLPHHGLADSSADLSCDSRVNSDYE- 808
Pan_troglodytes   DTWYQELKAIIREQQTRPIWTTAEDQLDGSLEDNLDLPHRGLADSSADLSCDSRVNSDYE- 817
Macaca_mulatta    DTWYQELKAIIREQQTRPIWTTAEDQLEGSLEDNLDLPHRGLADSSADLSCDSRVNSDYE- 818
Callithrix_jacchus DAWYQELKAIIREQQTRPIWTTAEDQLDGSLEDNLDLPHRGLADSSADLSCDSRVNSDYE- 803
Bos_taurus        DSWYQELKAVIQEQQMRPIWTTAEDQLDNSSSEDNLDLPHHGLADSSADLSCDSRVNSDYE- 811
Orcinus_orca      DSWYQELKAVIQEQQMRPIWTTAEDQLDSSSEDNLDLPHYSLADSSADLSCDSRLNSDYE- 811
Equus_caballus     DAWFQELKGIIREQQTRPIWTTAEDQLDGSDDNLDLPLRGLGDSSADLSCDSRVNSDYE- 795
Canis_lupus_familiaris DTWYQELKAVVREQQTRPIWTTAEDQLDNSSSEDNLDLPHRGLADSSADLSCDSRVNSDYE- 806
Felis_catus       DAWYRELKAVIREQQTRPIWTTAEDQPDN SSEGNLDLPHRGLADSSADLSCDSRVNSDYE- 802
Xenopus_tropicalis DSWLRSLSKEIIQTEQTKPIWTTEDKENTITEP-LDLLDDSTAEVNDYLS CDSRANS DYEE 901
Rhinatrema_bivittatum DSWYRSLSKEIIKTQQARPIWTTAEDMAECTTEQNLDMLNQQS PSCITDYLSCDSRANS DYED 878
.....1030.....1040.....1050.....1060.....1070.....1080

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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**.*.*          : * *          ::          .**:*.*.*.*.
Pavo_muticus      TDGEGG-----AYTDGEA-----EDAYNHPALSRSSSEPAQTY-PSHGVSEQVT- 1036
Pavo_cristatus    TDGEGG-----AYTDGEA-----EDAYNHPALSRSSSEPAQTY-PSHGVSEQVT- 1036
Gallus_gallus     TDGEGG-----AYTDGEA-----EDAYSHPALSRSSSEPAQTY-PSDGVSEQVT- 1036
Chelonia_mydas    TDGEGG-----AYTDNEL-----EDDHAQTALARSSSEPEPHNPDEHVAVSLTY 897
Mus_musculus      TDGEG-----AYTDREGG-PQDVDEEVAPTALARSSSEPWWDDHQGLMGHGTTI 848
Rattus_norvegicus TDGEG-----TYTDREGE-PQDFDEEAPPTALARSSSEPWWDDHQGLMGHGRI-- 855
Homo_sapiens      TDGEGGAYTDGE-----GYTDGEGGPYTDVDDEPPAPALARSSSEPVADESSQSPRDRGRI- 863
Pan_troglodytes   TDGEGGAYTDGE-----GYADGEGGPYTDVDDEPPAPALARSSSEPVADEFPQSPRDRGRI- 872
Macaca_mulatta    TDGEGGAYTDGE-----GYTDGEGGPYTDMDDEPPAPALARSSSEPVADEFPQSPRDRGRI- 873
Callithrix_jacchus TDGEG-----CTDGEGGAHTDVDDEPPAPALARSSSEPVRADFPQSPRDHGRI- 850
Bos_taurus        TDGEGSVYTDGE-----GYTDGEGGPHTDVDEGPRVPALARSSSEPVLGDEARIPQHHGRF- 866
Orcinus_orca      TDGEGGVYTDGE-----GYTDGEGGPHMDVDEGPPAPALARSSSEPVLEDEPRILQDHGRS- 866
Equus_caballus    TDGEGGVYTDGVYTDGDYTDGEGGRHTDGDEEPPVPALARSSSEPVLADEP-----PSP- 848
Canis_lupus_familiaris TDGEG-----YTDGEG--YTDVDEGPPAPALARSSSEPVLEEEPRSPRDHGRI- 851
Felis_catus       TDGEG-----YTDGEGGPHTDVDEGPPAPALARSSSEPVLADEFPQSPGDHGRI- 849
Xenopus_tropicalis TDAEGG-----AYTDQEL-----EEEIQEPALARSSSEPVLDYQSTYYRAHSPDD 945
Rhinatrema_bivittatum TDGEGG-----AYTDTEM-----EEVFEQPALARSSSEPEAEF--YYLSQFAG- 919
.....1090.....1100.....1110.....1120.....1130.....1140

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*
Pavo_muticus      -----EQQPQGOWAQEH--LR 1050
Pavo_cristatus    -----EQQPQGOWAQEH--LR 1050
Gallus_gallus     -----EQQPQGOWAQEH--IR 1050
Chelonia_mydas    -----AASR---DGDQQPQGOWRODYSSIR 919
Mus_musculus      -----TDKWEIQADSHYTDQDRRODS--MR 871
Rattus_norvegicus -----IAAAEVQADSHYTPDQDRRODS--MR 878
Homo_sapiens      -----SAHQGAQVDSRHPOGOWRODS--MR 886
Pan_troglodytes   -----SAHQGAQVDSRHPOGOWRODS--MR 895
Macaca_mulatta    -----LAHQGAQVDSSSHPOGOWRODS--VR 896
Callithrix_jacchus -----SARREAQVDSRHPOGOWRODS--MR 873
Bos_taurus        -----SGPQEAQMDSRHPOGORROES--MR 889
Orcinus_orca      -----SGHQGTQVDGHHPOGORRODS--MR 889
Equus_caballus    -----RGHRAAQVDSRHVPAPRRRODS--MR 871
Canis_lupus_familiaris -----SGARGAQVDRHPYHSQGRRODS--MR 874
Felis_catus       -----PGPRGAQVDGHSPPHPOGOWRODS--MR 872
Xenopus_tropicalis YPSEYKDQSLPETNNIHGTPKRPPELSSNYRSSLPSSNDSPQQESVSQPOGOWSASAMNSR 1005
Rhinatrema_bivittatum -----LAYRS-----AEDEDSQPQGOWTR-DHETR 943
.....1150.....1160.....1170.....1180.....1190.....1200

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Pavo_muticus      DYEHEAVRRRFRTRARD-DSDEDEGY--EWG-PATDV 1082
Pavo_cristatus    DYEHEAVRRRFRTRARD-DSDEDEGY--EWG-PATDV 1082
Gallus_gallus     NYEHEAVRRRFRTRARD-DSDEDEGY--EWG-PATDV 1082
Chelonia_mydas    EYEHNALKKKFTQARAYDSDEDEGY--DWG-PATDL 952
Mus_musculus      TYKHEALRKKFTRARDVESSDEDEGY--DWG-PATDL 904
Rattus_norvegicus TYKHEALRKKFTRARDIESSDEDEGY--DWG-PATDL 911
Homo_sapiens      TYEREALKKKFMRVHDAESSDEDEGY--DWG-PATDL 919
Pan_troglodytes   TYEREALKKKFTRVHDAESSDEDEGY--DWG-PATDL 928
Macaca_mulatta    TYEQEALKKKFIRVRDAESSDEDEGY--DWG-PATDL 929
Callithrix_jacchus TYEREALKKKFTRARDVESSDEDEGY--DWG-PATDV 906
Bos_taurus        TYEREALRKKFTRARDVESSDEDEGY--DWG-PATDL 922
Orcinus_orca      TYERDALRKKFTRARDVESSDEDEGY--DWG-PATDL 922
Equus_caballus    MYEQEALRKKFTRARDVESSDEDEGY--AWG-PATDL 904
Canis_lupus_familiaris TYGQEALKKKFTRARDVESSDEDEGY--DWG-PATDL 907
Felis_catus       TYGQEALKKKFTRARDMESSDEDEGY--DWG-PATDL 905
Xenopus_tropicalis EYEHDALRKKFNNNAR-YSSSDEEED--AWGGPATDL 1038
Rhinatrema_bivittatum AYEADALRKKFTRARSYSSEQEEEDQYWGGPATDL 979
.....1210.....1220.....1230.....

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