

## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

**File: /media/morpheus/disk1/fst/pep\_msa/PLA** **App: Tue Feb 1 14:19:09 2022**

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Species	Sequence	Position
Pavo_muticus	-----	
Pavo_cristatus	-----	
Gallus_gallus	-----	
Anas_platyrrhynchos	-----	
Chelonia_mydas	-----MTVSGAGKGCCCVRVSLSRSTARRLSRAEARFP-----	35
Homo_sapiens	-----	
Pan_troglodytes	-----	
Macaca_mulatta	-----	
Callithrix_jacchus	-----	
Bos_taurus	-----	
Equus_caballus	-----MSGLLCHSARSARPPFAALPHRLSGSSGLRPPHTGRVLSRRGPGHARPPFLRTDLARCLAP-----	60
Canis_lupus_familiaris	-----	
Mus_musculus	-----	
Rattus_norvegicus	-----	
Heterocephalus_glaber	-----	
Rhinatrema_bivittatum	-----	
Xenopus_tropicalis	-----	
	1.....10.....20.....30.....40.....50.....60	

	*** *: *: ****: *: *****: *** *: :	
Pavo_muticus	-----MAGD-GGAYRLCCSLLGHEQDVRGIITRG-LFPEGGFVSVSRDRTARLWAPDGLN	52
Pavo_cristatus	-----MAGD-GGAYRLCCSLLGHEQDVRGIITRG-LFPEGGFVSVSRDRTARLWAPDGLN	52
Gallus_gallus	-----MAGD-GGVYRLRCSLLGHEQDVRGIITRG-LFPEGGFVSVSRDRTARLWTPDGLN	52
Anas_platyrhynchos	-----MAGDVGGGAYRLRCSLPGHQDVRGLARG-IFPDGGFVSVSRDRTARLWAPDGLN	53
Chelonia_mydas	AVGRAAAMASAGGTYYRLRCSLVGHEDVRGLSHG-LFPFGGFVSVSRDRTARLWAPDCPN	94
Homo_sapiens	-----MTSGATRYRLSCSLRGHELDVRGLVCC-AYPFGAFVSVSRDRTTRLWAPDSPN	52
Pan_troglodytes	-----MTSGATRYRLSCSLRGHELDVRGLVCC-AYPFGAFVSVSRDRTTRLWAPDSPN	52
Macaca_mulatta	-----MTSGATRYRLSCSLRGHELDVRGLVCC-PFPPGAFVSVSRDRTTRLWAPDSPN	52
Callithrix_jacchus	-----MTSGGTRYRLSCSLRGHELDVRGLVCC-PYPPGAFVSVSRDRTTRLWVPDSPN	52
Bos_taurus	-----MASGSCRYRLSCSLSGHELDVRGLVCC-LYPPGAFVSVSRDRTTRLWVPDSPN	52
Equus_caballus	GARPTRAMAGGAARYRLCSLPGHELDVRGLVCC-LYPPGAFVSVSRDRTTRLWVPDSPN	119
Canis_lupus_familiaris	-----MASSAARYRLSCSLPGHELDVRGLVCS-LYPPGAFVSVSRDRTTRLWVPDSPN	52
Mus_musculus	-----MASGASRYRLSCSLPGHELDVRGLVCC-LYPPGAFVSVSRDRTTRLWAPDSPN	52
Rattus_norvegicus	-----MASGAARYRLSCSLPGHELDVRGLVCC-LYPPGAFVSVSRDRTTRLWAPDSPN	52
Heterocephalus_glaber	-----MASSGARYRLSCSLPGHELDVRGLVCC-LYPPGAFVSVSRDRTTRLWAPDSPN	52
Rhinatrema_bivittatum	-----MASSYRLSCTLPGHELDVRGLACG-YFPEGSFVSVSRDRSARLWAPSSPH	49
Xenopus_tropicalis	--MSQAGRDGDCNYRLRCSLLGHELDVRGVARCP-LWPGEFVSVSRDRSARLWLPDSPN	58
	.....70.....80.....90.....100.....110.....120	

	: * . *: * ** .*** .*** .* ** *.*****.*::.. *** ****	
Pavo_muticus	RGFT <del>EMH</del> CMRGHSNFVSCVCII <del>PPS</del> DLYPRGLIATGGNDHNICIFTVDNTAPLYVLKGHK	112
Pavo_cristatus	RGFT <del>EMH</del> CMRGHSNFVSCVCII <del>PPS</del> DLYPRGLIATGGNDHNICIFTVDNTAPLYVLKGHK	112
Gallus_gallus	RGFT <del>EMH</del> CMRGHSNFVSCVCII <del>PPS</del> DLYPRGLIATGGNDHNICVFTVDNTAPLYVLKGHT	112
Anas_platyrhynchos	RGFT <del>EMH</del> CMRGHSNFVSCVCII <del>PPS</del> DLYPRGLIATGGNDHNICIFTVDS <del>T</del> APLYVLKGHK	113
Chelonia_mydas	RGFT <del>EMH</del> SMRGHSNFVSCVCII <del>PPS</del> DNYPRLGIATGGNDHNICIFTLDTN <del>T</del> APLYVLKGHK	154
Homo_sapiens	RSFTEMHCM <del>S</del> GHSNFVSCVCII <del>PSS</del> DIYPHG <del>L</del> IATGGNDHNICIFS <del>L</del> SPMPPLYILK <del>G</del> HK	112
Pan_troglodytes	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSS</del> DIYPHG <del>L</del> IATGGNDHNICIFS <del>L</del> SPMPPLYILK <del>G</del> HK	112
Macaca_mulatta	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSS</del> DIYPHG <del>L</del> IATGGNDHNICIFS <del>L</del> SPMPPLYILK <del>G</del> HK	112
Callithrix_jacchus	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSS</del> DIYPHG <del>L</del> IATGGNDHNICIFS <del>L</del> SPMPPLYILK <del>G</del> HK	112
Bos_taurus	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSSD</del> VYPHG <del>L</del> IATGGNDHNICVFS <del>L</del> ESPAPLYVLK <del>G</del> HK	112
Equus caballus	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSSD</del> TYPHG <del>L</del> IATGGNDHNICVFS <del>L</del> ESPAPLYILK <del>G</del> HK	179
Canis_lupus_familiaris	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSSDM</del> YPHG <del>L</del> IATGGNDHNICIFS <del>L</del> ESPAPLYILK <del>G</del> HK	112
Mus_musculus	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSSD</del> IYPHG <del>L</del> IATGGNDHNICIFS <del>L</del> SPMPPLYILK <del>G</del> HK	112
Rattus_norvegicus	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSSD</del> IYPHG <del>L</del> IATGGNDHNICIFS <del>L</del> SPMPPLYILK <del>G</del> HK	112
Heterocephalus_glaber	RGFT <del>EMH</del> CMSGHSNFVSCVCII <del>PSSD</del> IYPHG <del>L</del> IATGGNDHNICVFS <del>L</del> SPVPLYILK <del>G</del> HK	112
Rhinatrema_bivittatum	RGFV <del>EMH</del> CMLGHSGFVSVCII <del>PASD</del> NYPRLGIATGGNDHNICVFTLDNP <del>N</del> PPLYVLK <del>GHR</del>	109
Xenopus_tropicalis	QEFVELQRMSGHSNFVSCVICL <del>PPS</del> DLYPRGLIATGGNDHNICVFS <del>L</del> SAKPLYTLK <del>G</del> HK	118
	.....130.....140.....150.....160.....170.....180	

# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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:*****:* *****:*****:*****
Pavo_muticus      NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAIWAVKILPEOGLMLTGSAD 172
Pavo_cristatus    NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAIWAVKILPEOGLMLTGSAD 172
Gallus_gallus     NTVCSLSSGKFGTLLSGSWDTTCKVWLNDRCMMLTQGHATAAIWAVKILPEOGLMLTGSAD 172
Anas_platyrhynchos NAVCSLSSGKFGTLLSGSWDTTAKVWLHRCMMTLQGHATAAIWAVKILPEOGLMLTGSAD 173
Chelonia_mydas    NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 214
Homo_sapiens      NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Pan_troglodytes   NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Macaca_mulatta    NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Callithrix_jacchus NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Bos_taurus        NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Equus_caballus    NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 239
Canis_lupus_familiaris NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Mus_musculus      DTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Rattus_norvegicus DTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Heterocephalus_glaber DTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 172
Rhinatrema_bivittatum NTVCSLSSGKFGTLLSGSWDTTAKVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 169
Xenopus_tropicalis NTVCSLSSGKFGTLLSGSWDTTGVWLNDRCMMLTQGHATAAVWAVKILPEOGLMLTGSAD 178
.....190.....200.....210.....220.....230.....240

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Pavo_muticus      KTIKLWKAGRCERTFTGHEDCVRGLAILSEMEFLSCSNDASVRRWHISGECLHVYYGHTN 232
Pavo_cristatus    KTIKLWKAGRCERTFTGHEDCVRGLAILSEMEFLSCSNDASVRRWHISGECLHVYYGHTN 232
Gallus_gallus     KTIKLWKAGRCERTYAGHEDCVRGLAILSEMEFLSCSNDASVRRWHISGECLHVYYGHTN 232
Anas_platyrhynchos KTIKLWKAGRCERTFTGHEDCVRGLAILSEMEFLSCANDASVRRWHISGKCLQVYYGHTN 233
Chelonia_mydas    KTIKLWKAGRCERTFTGHEDCVRGLAILSETEFLSCANDASIRRWQISGECLQIYYGHTN 274
Homo_sapiens      KTVKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 232
Pan_troglodytes   KTVKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 232
Macaca_mulatta    KTIKLWKAGRCERTFAGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 232
Callithrix_jacchus KTIKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASVRRWQITGECLEVYYGHTN 232
Bos_taurus        KTIKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 232
Equus_caballus    KTIKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 299
Canis_lupus_familiaris KTIKLWKAGRCERTFSGHEDCVRGLAILSEAEFLSCANDASIRRWQITGECLEVYYGHTN 232
Mus_musculus      KTIKLWKAGRCERTFLGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 232
Rattus_norvegicus KTIKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASIRRWQITGECLEVYYGHTN 232
Heterocephalus_glaber KTIKLWKAGRCERTFSGHEDCVRGLAILSETEFLSCANDASIRKWQITGECLEVYYGHTN 232
Rhinatrema_bivittatum KTIKLWKAGRCERTFTGHEDCVRGLATLNKTEFLSCSNDASVRRWNISGECLHVCFYGHTN 229
Xenopus_tropicalis KSIKLWKAGRCERTFLGHEDCVRGLATVNDTEFLSCSNDASVRRWLITGECLEIYYGHTN 238
.....250.....260.....270.....280.....290.....300

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Pavo_muticus      YIYSVSVPFPHCKDFVTTGEDRSRLRIWKQGECAQTIRLPAQSVWCCCVLDNDIVVG---- 288
Pavo_cristatus    YIYSVSVPFPHCKDFVTTGEDRSRLRIWKQGECAQTIRLPAQSVWCCCVLDNDIVVG---- 288
Gallus_gallus     YIYSVSVPFPHCKDFITTEDRSRLRIWKQGEVQTIRLPAQSVWCCCVLDNDIVVG---- 288
Anas_platyrhynchos YIYSISVPFPHCKDFVTTGEDRSRLRIWKQGECAQTIRLPAQSVWCCCVLDNGDIVVG---- 289
Chelonia_mydas    YIYSISVPFPHCKDFVTTGEDRSRLRIWKRGCECAQTIRLPAQSVWSCCVLDNGDIVVGTRNI 334
Homo_sapiens      YIYSISVPFPCRDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Pan_troglodytes   YIYSISVPFPCRDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Macaca_mulatta    YIYSISVPFPCRDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Callithrix_jacchus YIYSISVPFPCRDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSVWCCCVLDNGDIVVG---- 288
Bos_taurus        YIYSISVPFPCNKDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Equus_caballus    YIYSISVPFPCNKDFVTTAEDRSRLRIWKRGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 355
Canis_lupus_familiaris YIYSISVPFPCRDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Mus_musculus      YIYSISVPFNSKDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLENGDIVVG---- 288
Rattus_norvegicus YIYSISVPFPCRDFVTTAEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Heterocephalus_glaber YIYSISVPFPCRDFVTTGEDRSRLRIWKHGCECAQTIRLPAQSIWCCCVLDNGDIVVG---- 288
Rhinatrema_bivittatum FIYSISAFPGSEDFVTTGEDRSRLRIWKGGECTQTIVRLPAQSVWCCCVLENGDIVVG---- 285
Xenopus_tropicalis YIYNICLFPNSQDFVTTSEDRSMRIWKKGECTQTIRLPAQSVWCCCVLDNGDIVVG---- 294
.....310.....320.....330.....340.....350.....360

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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                                     ***::*****: * * . :*:***.*:*.***.*.*
Pavo_muticus      -----ASDGIIRVFTKSLERTASAEETQAFENELSQASIDPKTGD 328
Pavo_cristatus    -----ASDGIIRVFTKSLERTASAEETQAFENELSQASIDPKTGD 328
Gallus_gallus     -----ASDGIIRVFTKSLERTASAEETQAFENELSQASIDPKTGD 328
Anas_platyrhynchos -----ASDGFVRVFTESSEERTASAEETQAFENELSQASIDPKTGD 329
Chelonia_mydas    TLTLYQMMEITFLNMLYFSAFSDGIIRVFTESLERTASAEETQAFENELSQATIDPKTSD 394
Homo_sapiens      -----ASDGIIRVFTESEDRTASAEETKAFKELSHATIDSKTGD 328
Pan_troglodytes   -----ASDGIIRVFTESEDRTASAEETKAFKELSHATIDSKTGD 328
Macaca_mulatta    -----ASDGIIRVFTESEDRTASAEETKAFKELSHATIDSKTGD 328
Callithrix_jacchus -----ASDGIIRVFTESEDRTAGAEETKAFKELSQATIDSKTGD 328
Bos_taurus        -----ASDGIIRVFTESEDRTASAEETKAFERELSQATIDSKTGD 328
Equus_caballus    -----ASDGIIRVFTESEDRTASAEETKAFKELSQATIDSKTGD 395
Canis_lupus_familiaris -----ASDGIIRVFTESEDRIASAEETKAFKELSQATIDSKTGD 328
Mus_musculus      -----ASDGIIRVFTESSEERTASAEETKAFERELSQATIDSKTGD 328
Rattus_norvegicus -----ASDGIIRVFTESADERTASAEETKAFERELSQATIDSKTGD 328
Heterocephalus_glaber -----ASDGIIRVFTESVDRTASAEETKAFKELSQATIDTKTGD 328
Rhinatrema_bivittatum -----ASDGMIRVFTESLERRASDQELKAFEEVSEATIDPKTGD 325
Xenopus_tropicalis -----ASDGIIRVFTESPDRIASPEETQAFENELSKATIDPKTGD 334
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      LGDINADDLPKGEHLKDPGTRDGTQLIKDNGKVEAYQWSVSEGRWIKIGDVVGSSGGTQ 388
Pavo_cristatus    LGDINADDLPKGEHLKDPGTRDGTQLIKDNGKVEAYQWSVSEGRWIKIGDVVGSSGGTQ 388
Gallus_gallus     LGDINADDLPKGEHLKDPGMRDGTQLIKDNGKVEAYQWSVSEGRWIKIGDVVGSSGGTQ 388
Anas_platyrhynchos LGDINAEQLPGKEHLKEPGTRDGTQLIKDNGKVEAYQWSVSEGRWIKIGDVVGSSGATQ 389
Chelonia_mydas    LGDINADDLPGREHLKEPGTREGTQLIKDNGKVEAYQWSVSEGRWIKIGEVVGSSGATQ 454
Homo_sapiens      LGDINAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSVSEGRWIKIGDVVGSSGANQ 388
Pan_troglodytes   LGDINAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSVSEGRWIKIGDVVGSSGANQ 388
Macaca_mulatta    LGDINAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSVSEGRWIKIGDVVGSSGANQ 388
Callithrix_jacchus LGDISAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSVSEGRWIKIGDVVGSSGANQ 388
Bos_taurus        LGDINAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSINERRWIKIGDVVGSSGASQ 388
Equus_caballus    LGDINAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSVSEGRWIKIGDVVGSSGATQ 455
Canis_lupus_familiaris LGDINAEQLPGREHLNEPGTREGTQLIRLDGEKVEAYQWSVSEGRWIKIGDVVGSSGANQ 388
Mus_musculus      LGDINAEQLPGREHLSEPGTREGTQLIRLDGERVEAYQWSVSDGRWIKIGDVVGSSGANQ 388
Rattus_norvegicus LGDINAEQLPGREHLNEPGTREGTQLIRLDGERVEAYQWSVSDGRWIKIGDVVGSSGANQ 388
Heterocephalus_glaber LGDINVEQLPGREHLNEAGTREGTQLIRLDGENVEAFQWSVSEGRWMKIGDVVGSSGANQ 388
Rhinatrema_bivittatum LGDINLDELPGKEHLDDPGTREGTQLVKEGKIEAYQWSSEKKWMKIGDVVGSSGATQ 385
Xenopus_tropicalis LGDIKIEDLPKGDLNEPGTRDGTQLIKEDGKVEAYQWSTGEGRWMKIGDVVGSSGATQ 394
.....430.....440.....450.....460.....470.....480

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*:***:***:***: * * . :***** :*:***:*****.*
Pavo_muticus      QTSQKVLFEQKEYDYVFTIDVNESGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Pavo_cristatus    QTSQKVLFEQKEYDYVFTIDVNESGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Gallus_gallus     QTSQKVLFEQKEYDYVFTIDVNESGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Anas_platyrhynchos QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 449
Chelonia_mydas    QSSGRVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 514
Homo_sapiens      QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Pan_troglodytes   QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Macaca_mulatta    QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Callithrix_jacchus QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Bos_taurus        QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 448
Equus_caballus    QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 515
Canis_lupus_familiaris QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAYNFLQKNDLNPFLDQVA 448
Mus_musculus      QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 448
Rattus_norvegicus QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 448
Heterocephalus_glaber QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 448
Rhinatrema_bivittatum QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 445
Xenopus_tropicalis QTSQKVLFEQKEYDYVFTIDVNEGPSYKLPYINISDDPWLTAAYNFLQKNDLNPFLDQVA 454
.....490.....500.....510.....520.....530.....540

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QKLTEDDLIILEKLLSATCNTSAEMPTAQQIQTLWKAINWPEDIVFPALDILRLSVRHPI    624
QKLTEDDLIILEKLLSATCNTSAEMPTAQQIQTLWKAINWPEDIVFPALDILRLSVRHPI    624
QKLTEDDLIILEKLLSATCNTSAEMPTAQQIQTLWKAINWPEDIVFPALDILRLSVRHPI    624
QKLTEDDDLIMLEKLLSATCNSSAETPTPQQQLTLWRVNWPEDIVFPALDILRLSVRHPN    627
QKLTEDDDLILLEKLLLFVTCTNSAETPTAQQLTLWKAINWPEDIVFPALDILRLSIRHPS    693
KKLTEDDLILLEKILSLICNSSSSEKPTVQQLQILWKAINCPEDIVFPALDILRLSIKHPS    625
KKLTEDDLILLEKILSLICNSSSSEKPTVQQLQILWKAINCPEDIVFPALDILRLSIKHPS    625
KKLTEDDLILLEKILSLICNSSSSEKPTVQQLQILWKAINWPEDIVFPALDILRLSIKHPS    625
KKLTEDDLILLEKILSLICNSSSSEKPTVQQLQILWKAINWPEDIVFPALDILRLSIKHPS    625
KKLTEDDLVLLEKILSLICNNSSSEKPTAQQLQILWKAVNWPEDIVFPALDILRLSIKHPS    626
KKLTEDDLILLEKILSLICNSSSSEKPTAQQLQILWKAINWPEDIVFPALDILRLSIKHPS    693
KKLTEDDLILLEKILSLICNSSSSEKPTAQQLQILWKAINWPEDIVFPALDILRLSIKHPS    626
KKLTEDDLVLLEKILSLICNNSSSEKPTAQQLQILWKAINWPEDIVFPALDILRLSIKHPS    625
KKLTEDDLVLLEKILSLICGNASEKPTAQQLQVLWKAINWPEDIVFPALDILRLSIKHPS    625
KKLTEDDLVLLEKILSLICDSSEKPTAQQLQILWKAINWPEDIVFPALDILRLSIKHPS    625
QKLAEDDLILLEKLLSVTCCKPSVETPTAPQMETLWKAVHLPEDIVFPALDILRLSIRHPS    619
RKMPEDLMQLDKLLSVAVNPSSGGAVTAQQLDTLWRVNWPEDIVFPALDVLRLSIKNPT    629
.....670.....680.....690.....700.....710.....720

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Pavo_muticus      VNENFCGEKAHVQFIHLLKFLNPQKGPANQLLALRALCNCVFSQAGOKLLMEORDEIMT 684
Pavo_cristatus    VNENFCGEKAHVQFIHLLKFLNPQKGPANQLLALRALCNCVFSQAGOKLLMEORDEIMT 684
Gallus_gallus     VNENFCGEKAHVQFIHLLKFLNPQKGPANQLLALRALCNCVFSQAGOKLLMEORDEIMT 684
Anas_platyrhynchos VNANFCGEKDHVQFIRLLKFLNPGGKQANQLLALRALCNCVFNQAGOKLLMEORDEIMT 687
Chelonia_mydas    VNENFCSEKDSIRFSSHLKFLSRNGKQANQLLALRTLNCVFSQAGORLMMSQORDTIMS 753
Homo_sapiens      VNENFCNEKEGAQFSSHLINLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 685
Pan_troglodytes   VNENFCNEKEGAQFSSHLINLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 685
Macaca_mulatta    VNENFCNEKEGTQFSSHLINLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 685
Callithrix_jacchus VNENFCSEKEGAQFSSHLINLLNPKGKGPANQLLALRTFCNCFVGOAGONLMMSQRESLMS 685
Bos_taurus        VNENFCNEKEGTIRFSSHLVSLNPRGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 686
Equus_caballus    VNENFCNEKEGAQFSSHLISLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 753
Canis_lupus_familiaris VNENFCNEKEGAQFSSHLISLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 686
Mus_musculus      VNENFCNEK-GDQFSSHLINLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 684
Rattus_norvegicus VNENFCNEKEGDQFSSHLINLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 685
Heterocephalus_glaber VNENFCNEKEGAHFSSHLISLLNPKGKGPANQLLALRTFCNCFVGOAGOKLMMSQRESLMS 685
Rhinatrema_bivittatum VNENLCSDEATGQFCSHLMKLLNHQKGPANQLLALRTFCNCFVGOAGOKLMMSHRDQILS 679
Xenopus_tropicalis VNEMFCNEKEGSQFSNYLLQLMSPRGKQANQLLVLRITLNSFFCDPGACLLMSERDAVIS 689
.....730.....740.....750.....760.....770.....780

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Pavo_muticus      QAIEVKSNNKKNVHIALATLTLNYAVCLHKVNNIEGKAQCLSVISTVMEVVKDLEAVFRL 744
Pavo_cristatus    QAIEVKSNNKKNVHIALATLTLNYAVCLHKVNNIEGKAQCLSVISTVMEVVKDLEAVFRL 744
Gallus_gallus     QAIEVKSNNKKNVHIALATLTLNYAVCLHKVNNIEGKAQCLSVISTVMEVVKDLEAVFRL 744
Anas_platyrhynchos QAIEVASNNKKNIHIAFATLTLNYAVCLHKVNNIEGKVQCLSVINTVMEVVDLEAVFRL 747
Chelonia_mydas    HAIELKLSGNNKKNIHIALATLTLNYAVWLHKVNNIEGKAQCLSVISTVIEVVQDLEAIFRL 813
Homo_sapiens      HAIELKSGNNKKNIHIALATLALNYSVCFHKDHNIEGKAQCLSLISTILEVVQDLEATFRL 745
Pan_troglodytes   HAIELKSGNNKKNIHIALATLALNYSVCFHKDHNIEGKAQCLSLISTILEVVQDLEATFRL 745
Macaca_mulatta    HAIELKSGNNKKNIHIALATLALNYSVCFHKDHNIEGKAQCLSLISTILEVVQDLEATFRL 745
Callithrix_jacchus HAIKLKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSLISTILEVVQDLEATFRL 745
Bos_taurus        HAIELKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSVISTVLEVVQDLEATFRL 746
Equus_caballus    HAIELKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSVISTVLEVVQDLEATFRL 813
Canis_lupus_familiaris HAIELKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSVISTVLEVVQDLEATFRL 746
Mus_musculus      HAIELKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSVISTILEVVQDLEATFRL 744
Rattus_norvegicus HAIELKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSVISTILEVVQDLEATFRL 745
Heterocephalus_glaber HAIELKSGNNKKNIHIALATLTLNYSVCFHKDHNIEGKAQCLSVISTILEVVQDLEATFRL 745
Rhinatrema_bivittatum QAIELKASNNKKNIHIALATLALNYATCLHQVNDIEGKAQCLSVVSTAVEMVQDLEAAFRL 739
Xenopus_tropicalis KAILLKSVINKKNIHIALATLMLNYAICLHKVSDIEGKAQCLSAISSIIEVVQDLEAIFRL 749
.....790.....800.....810.....820.....830.....840

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Pavo_muticus      LVALGTLISDDKNAVQLAKSLGFDSDIKKYVSVEPAKVKECCRFVNLNLL 794
Pavo_cristatus    LVALGTLISDDKNAVQLAKSLGVDSDIKKYVSVEPAKVKECCRFVNLNLL 794
Gallus_gallus     LVALGTLISDDKNAVQLAKSLGVDSDIKKYVSVEPAKVKECCRFVNLNLL 794
Anas_platyrhynchos LVALGTLISDDTNAVQLAKSLGVDSDIKKYASVSEPAKVKECCRFVNLNLL 797
Chelonia_mydas    LVALGTLISDDTNAVQLAKSLGVDSDIKKYASVSEPAKVSECCRFVNLNLL 863
Homo_sapiens      LVALGTLISDDSNVQLAKSLGVDSDIKKYSSVSEPAKVSECCRFILNLL 795
Pan_troglodytes   LVALGTLISDDSNVQLAKSLGVDSDIKKYSSVSEPAKVSECCRFILNLL 795
Macaca_mulatta    LVALGTLISDDSNVQLAKSLGVDSDIKKYSSVSEPAKVSECCRFILNLL 795
Callithrix_jacchus LVALGTLISDDSNVQLAKSLGVDSDIKKYSSVSEPAKVSECCRFILNLL 795
Bos_taurus        LVALGTLISDDSNVQLAKSLGVDSDIKKYASVSEPAKVSECCRLILNLL 796
Equus_caballus    LVALGTLISDDSNVQLAKSLGVDSDIKKYASVSEPAKVSECCRLILNLL 863
Canis_lupus_familiaris LVALGTLISDDLNAVQLAKSLGVDSDIKKYASVSEPAKVSECCRLILNLL 796
Mus_musculus      LVALGTLISDDSNVQLAKSLGVDSDIKKYVSVEPAKVSECCRLVHLNLL 794
Rattus_norvegicus LVALGTLISDDSNVQLAKSLGVDSDIKKYASVSEPAKVSECCRLILNLL 795
Heterocephalus_glaber LVALGTLISDDSNVQLAKSLGVDSDIKKYASVSEPAKVSECCRFILNLL 795
Rhinatrema_bivittatum LVALGTLISDDANAVQLAKSLGIDSDIKKYAAVSEPAKISECCRLVNLNLL 789
Xenopus_tropicalis LVALGTLISDDKNAVQLAKSLGVDSDIKKFMSVTEPAKVNECCRLILNLL 799
.....850.....860.....870.....880.....890

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