File: /media/morpheus/disk1/fst/pep_msa/SYKDpste: Tue Feb 1 14:41:45 2022 Page 1 of 4

	. ***.******* *************	
Pavo muticus	MASN-MASPASHLPYFFGNITREEAEEYLMQGGMSDGLYLLRQSRNYLGGFALSLAYGRK	59
Pavo_cristatus	MASN-MASPANHLPYFFGNITREEAEEYLMOGGMSDGLYLLROSRNYLGGFALSLAYGRK	59
Gallus_gallus	MASN-MANPANHLPYFFGNITREEAEEYLMQGGMSDGLYLLRQSRNYLGGFALSLAYGRK	59
Chelonia mydas	MAAN-MANSANHLPYFFGNITREEAEDYLMQGGLSDGLYLLRQSRNFLGGFALSLAHGRK	59
Homo sapiens	MASSGMADSANHLPFFFGNITREEAEDYLVQGGMSDGLYLLRQSRNYLGGFALSVAHGRK	60
Pan_troglodytes	MASSGMADSANHLPFFFGNITREEAEDYLVQGGMSDGLYLLRQSRNYLGGFALSVAHGKK	60
Macaca mulatta	MASSGMADNANHLPFFFGNITREEAEDYLVQGGMSDGLYLLRQSRNYLGGFALSVAHGRK	60
Callithrix_jacchus	MASSSMADSANHLPFFFGNITREEAEDYLVQGGMSDGLYLLRQSRNYLGGFALSVAHGRK	60
Mus_musculus	MA <mark>GS-AVD</mark> SANHLTYFF <mark>GNITREEAEDYLVQGGMTDGLYLLRQSRNYLGG</mark> FAL <mark>SVAHNRK</mark>	59
Rattus_norvegicus	MA <mark>GN-AVDNANHLTYFFGNITREEAEDYLVQGGMTDGLYLLRQSRNYLGG</mark> FALSVAHN <mark>RK</mark>	59
<pre>Heterocephalus_glaber</pre>	MA <mark>GT-AAD</mark> NANHL <mark>PFFYGNITREEAEDYLVQGGMTDGLYLLRQSRNYLGG</mark> FAL <mark>S</mark> VAHGRK	59
Bos_taurus	mgdgannl <mark>pfffgnitreeaedylvqggmsdglyllrqsrnylgg</mark> falsvahdrk	55
Equus_caballus	MA <mark>GG-TADGAN</mark> NL <mark>P</mark> FFF <mark>GNITREEAEDYLVQGGMSDG</mark> LYLLRQS <mark>RNYLGG</mark> FALSVAHGRK	59
Canis_lupus_familiaris		59
Rhinatrema_bivittatum	MADIANHLPFFYGNITREEAEDYLHQGRMSNGLYLLRQSRSYLGGFALSVAYEKK	55
Latimeria_chalumnae	MADNANHLTYFYGSITREEAEEFLRQGGMSDGLFLLRQSRNYLGGFALSVAHGKK	55
Xenopus_tropicalis	madiaqnl <mark>p</mark> yff <mark>gnitree</mark> sedylr <mark>qag</mark> aadglyll <mark>rqsr</mark> syl <mark>ggyals</mark> vahgrh	55
	1102030405060	
	:** ****: . * *** ** :	
Pavo_muticus	VHHYTIERELSGTYAIAGGKSHASPAELINYHSEEADGLICLLRKSFNRPPGIEPKTGPF	119
Pavo_cristatus	VHHYTIERELSGTYAIAGGKSHASPAELINYHSEEADGLICLLRKSFNRPPGIEPKTGPF	119
Gallus_gallus	VHHYTIERELSGTYAIAGGKSHASPAELINYHSEEADGLICLLRKSFNRPPGVEPKTGPF	119
Chelonia_mydas	VHHYTIERELSGFYAIA <mark>GGKSHMSP</mark> AELINYHSDEADGLVCLLRRPCNRPPGVEPKTGPF	119
Homo_sapiens	AHHYTIERELNGTYAIAGGRTHASPADLCHYHSQESDGLVCLLKKPFNRPQGVQPKTGPF	120
Pan_troglodytes	AHHYTIERELNGTYAIAGGRTHASPADLCHYHSQESDGLVCLLKKPFNRPQGVQPKTGPF	120
Macaca_mulatta	AHHYTIERELNGTYAIAGGRTHASPADLCHYHSQESDGLVCLLKKPFNRPQGVQPKTGPF	120
Callithrix_jacchus	AHHYTIERELNGTYAIAGGRTHASPADLCHYHSQESDGLVCLLQKPFNRPQGVQPKTGPF	120
Mus_musculus	AHHYTIERELNGTYAISGGRAHAS <mark>P</mark> ADLCHYHSQEPDGLICLLKKPFNRPPGVQPKTGPF	119
Rattus_norvegicus	AHHYTIERELNGTYAISGGRAHASPADLCHYHSQEPEGLVCLLKKPFNRPPGVQPKTGPF	119
Heterocephalus_glaber	AHHYTIERELNGTYAISGGRTHSSPADLCHYHSLESDGLVCLLTKPCNRPPGVQPKTGPF	119
Bos_taurus_	AHHYTIERELNGTYAITGGRAHGSPAELCHYHTQELDGLVCLLKKPFNRPPGVQPKTGPF	115
Equus_caballus	AHHYTIERELNGTYAIAGGRTHSSPAELCHYHSQESDGLVCLLTKPFNRPPGVQPKTGPF	119
Canis_lupus_familiaris		119
Rhinatrema_bivittatum	CHHYMIEREMSGTYAISGGKSHVSPSDLCNYHTQETDGFVCLLRTPCNRPQGVEPKTGPF	115
Latimeria_chalumnae	SYHYTIERELSGTYAIIGGKSHSTPADICEYHSQDPGGLICLLKKPCNRPAGVQPKVGPF	115
Xenopus_tropicalis	FYHYTIERELNGTYAISGGISHSSPAELCHYHTLESSGLVCLLKKPCNRLPGVQPKTGPF	115
	708090100110120	
	******* * * * * * ******************	
Pavo muticus	EDLKENLIREYVKQTWNLQGHALEQAIISQKPQLEKLIATTAHEKMPWFHGRISREESEH	179
Pavo_muticus Pavo_cristatus	EDLKENLIRETVKQTWNLQGHALEQATISQKPQLEKLIATTAHEKMPWFHGRISREESEH	179
Gallus gallus	EDLKENLIREYVKQTWNLQGHALEQAIISQKPQLEKLIATTAHEKMPWFHGRISREESEH	179
Chelonia mydas	EDLKETLIREYVKOTWNLOGNALEQAIISQKPQLEKLIATTAHEKMPWFHEKISREESEH	179
Homo sapiens	EDLKENLIREYVKOTWNLOGOALEOAIISOKPOLEKLIATTAHEKMPWFHGKISREESEO	180
Pan troglodytes	EDLKENLIREYVKOTWNLOGOALEOAIISOKPOLEKLIATTAHEKMPWFHGKISREESEO	180
Macaca mulatta	EDLKENLIREYVKQTWNLQGQALEQAIISQKPQLEKLIATTAHEKMPWFHGKISREESEQ	180
Callithrix_jacchus	EDLKENLIREYVKOTWNLOGOALEOAIISOKPOLEKLIATTAHEKMPWFHGRITREESEO	180
Mus_musculus	EDLKENLIREYVKQTWNLQGQALEQAIISQKPQLEKLIATTAHEKMPWFHGNISRDESEQ	179
Rattus_norvegicus	EDLKENLIREYVKQTWNLQGQALEQAIISQKPQLEKLIATTAHEKMPWFHGNISRDESEQ	179
Heterocephalus_glaber	EDLKENLIREYVKQTWNLQGQALEQAIISQKPQLEKLIATTAHEKMPWFHGNISRGESEQ	179
Bos taurus	EDLKENLIRETVKQTWNLQGQALEQATISQKPQLEKLIATTAHEKMPWFHGKISRDESEQ EDLKENLIREYVKQTWNLQGQALEQATISQKPQLEKLIATTAHEKMPWFHGKISRDESEQ	175
Equus_caballus	EDLKENLIREYVKQTWNLQGEALEQAIISQKPQLEKLIATTAHEKMPWFHGKISRDESEQ EDLKENLIREYVKQTWNLQGEALEQAIISQKPQLEKLIATTAHEKMPWFHGKISRDESEQ	179
Canis lupus familiaris		179
Rhinatrema bivittatum	EDLKENMIREYVKQIWNLQGEALEQAIISQKPQLEKLIATTAHEKMTWFHGRISREESEH	175
Latimeria chalumnae	EDLKEQMVREYVRQTWGLLGDALEQAIISQKPQLEKLIATTAHEKMPWFHGKISRDESEH	175
Xenopus_tropicalis	EDLKEHLIREYVHQTWNLQGEALEQAIISQKPQLEKLIATTAHEKMPWFHGRISREDSEQ	175
"O"OPUB_CTOPICATIB	130140150160170180	1,5

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:: * : :*.*** ::. .*:**** : *: ** *::******
                            RILI<mark>GSR</mark>N<mark>NGK</mark>FLIRERDS<mark>NGSYAL</mark>CLLND<mark>GK</mark>VLHYRIDRDKTGKLSIPDGKRFDTLW<mark>Q</mark>L
Pavo_muticus
                                                                                                          239
                            RILI<mark>GSRNNGK</mark>FLI<mark>RERDSNGSYALCLLNDGKVLHYRIDRDKTGKLSIPDGKR</mark>FDTLWQL
Pavo_cristatus
                                                                                                          239
Gallus_gallus
                            RILIGSRNNGKFLIRERDSNGSYALCLLNDGKVLHYRIDRDKTGKLSIPDGKRFDTLWQL
                                                                                                          239
                            RVLLGTRTNGKFLIRERDNNGSYALCLLSEGKVLHYRIDRDKTGKLSIPDGKKFDTLWQL
                                                                                                          239
Chelonia_mydas
                            IVLIGSKTNGKFLIRARDNNGSYALCLLHEGKVLHYRIDKDKTGKLSIPEGKKFDTLWQL
                                                                                                          240
Homo sapiens
Pan_troglodytes
                            IVLIGSKTNGKFLIRARDNNGSYALCLLHEGKVLHYRIDKDKTGKLSIPEGKKFDTLWQL
                                                                                                          240
Macaca_mulatta
                            IVLI<mark>GSKTNGK</mark>FLI<mark>RARDNNGSYALCLLHEGK</mark>VLHYRIDKDKTGKLSIPEGKKFDTLWQL
                                                                                                          240
                            IVLIGSKTNGKFLIRARDNNGSYALCLLHEGKVLHYRIDKDKTGKLSIPEGKKFDTLWQL
Callithrix_jacchus
                                                                                                          240
Mus musculus
                            TVLIGSKTNGKFLIRARDNSGSYALCLLHEGKVLHYRIDRDKTGKLSIPEGKKFDTLWQL
                                                                                                          239
                            TVLI<mark>GSKTNGK</mark>FLI<mark>RARDNNGS</mark>FALCLLHEGKVLHYRIDRDKTGKLSIPEGKKFDTLWQL
                                                                                                          239
Rattus_norvegicus
Heterocephalus_glaber
                            IVLIGSKTDGKFLIRARDNNGSYALCLLHEGKVLHYRIDKDKTGKLSIPEGKKFDTLWQL
                                                                                                          239
Bos_taurus
                            IVLIGSKTNGKFLIRAKDN-GSYALCLLHEGKVLHYRIDKDKTGKLSIPGGKNFDTLWQL
                                                                                                          234
Equus_caballus
                            VVLI<mark>GSKINGKFLIRARDNNGSYALCLLHEGK</mark>VLHYRIDKDK<mark>TGKLSIPDGKKFDT</mark>LW<mark>Q</mark>L
                                                                                                          239
Canis_lupus_familiaris_IVMI<mark>GSKTNGK</mark>FLI<mark>R</mark>DRNDNGSYALCLLHEGKVLHYRIDKDKTGKLSIPDGKKFDTLWQL
                                                                                                          239
Rhinatrema_bivittatum
                            FILL<mark>GSKNNGKFLIREKDNNGSYALC</mark>LLSEGKVLHYLIEKDKTGKLSIRSGKKFDTLWQL
                                                                                                          235
Latimeria_chalumnae
                            RIFVGQKINGKFLIRERDNNSSYALCLLHESKVLHYRIDRDKTGKLSIPDGKKFDTLWQL
                                                                                                          235
Xenopus_tropicalis
                            LLI<mark>SG</mark>VKSNGSFLIRERDDNGSYALCLLHDRKISHYRIDRDKTGKLSIPDGKKFDTLWQL
                                                                                                          235
                             .....190......200......210......220......230......240
                            ****** *** ***: **
                            VEHYSYKPDGLLRVLSIPCPRH-GSESDNVVFDTR--PLPGTPSKSWARGGIISRLKSYT
VEHYSYKPDGLLRVLSIPCPRH-GSESDNVVFDTR--PLPGTPSKSWARGGIISRLKSYT
Pavo_muticus
                                                                                                          296
Pavo cristatus
                                                                                                          296
                            VEHYSYKPDGLLRVLSIPCPRH-GSESDNVVFDTR--PLPGTPSKSWARGGIISRLKSYT
Gallus gallus
                                                                                                          296
Chelonia_mydas
                            <mark>VEHYSYKPDG</mark>LQRVL<mark>TIPCARL-G</mark>SENA<mark>N</mark>IIFDTR<mark>PPPLPGTHP</mark>K<mark>TWSTGGIISRLKSYT</mark>
                                                                                                          298
                            VEHYSYKADGLLRVLTVPCQKI-GTQG--NVNFGGRPQLPGSHPATWSAGGIISRIKSYS
VEHYSYKADGLLRVLTVPCQKI-GTQG--NVNFGGRPQLPGSHPATWSAGGIISRIKSYS
Homo_sapiens
                                                                                                          297
Pan_troglodytes
                                                                                                          297
                            VEHYSYKADGLLRVLTVPCQKI-GTQG--NVNFGGRPQLPGSHPATWSAGGIISRIKSYS
VEHYSYKADGLLRVLTVPCQKI-GLPAGNNVHFGGRPQLPGSHPATWSAGGIISRIKSYS
Macaca mulatta
                                                                                                          297
Callithrix_jacchus
                                                                                                          299
                            VEHYSYKPDGLLRVLTVPCQKI-GAOM------GHPGSPNAHPVTWSPGGIISRIKSYS
VEHYSYKPDGLLRVLTVPCQKI-GVQM------GHPGSSNAHPVTWSPGGIISRIKSYS
Mus musculus
                                                                                                          291
Rattus_norvegicus
                                                                                                          291
                            VEHYSYKPDGLLRVLTVPCOKI-GAQA-----AHPOSS--SLATWSAGGIISRLKSYS
Heterocephalus glaber
                                                                                                          289
                            VEHYSYKSDGLLRVLTVPCQKI-GGQSG-NINF--RPQLPSSHPGTWSAGGIISRIKSYS
Bos taurus
                                                                                                          290
                            VEHYSYKADGLLRVLTVPCQKI-GGQTG-NINFGGRPQLPSSHPATWSAGGIISRIKSYS
VEHYSYKPDGLLRVLTVPCQKI-GGQPG-NINFGARAPLPGAHPATWSAGGIISRIKSYT
Equus caballus
                                                                                                          297
Canis_lupus_familiaris
                                                                                                          297
                            V<mark>EHYSYKADGLERVLTFPCPQ</mark>L-<mark>GLNN------HDIESRPRLP</mark>DRRQLTN<mark>GGIISRIKSYT</mark>
Rhinatrema bivittatum
                                                                                                          268
Latimeria_chalumnae
                                                                                                          290
Xenopus tropicalis
                            VEHYSYKPDGLLRVLTE<mark>PCPRATG</mark>HSESFIFKRA<mark>PCPAPP</mark>TQHQMSWSAGGIISRFKSYS
                                                                                                          295
                              .....250......260......270......280......290......300
                                                                                     :.:**** **..
                            FPKAGSKKLQTPIG---PPSDDQTPFNPYVLQRARGLIGAEKGDQREALPMDTEVYESPY
Pavo_muticus
                                                                                                          353
                            FPKAGSKKLQTPIG---PPSDDQTPFNPYVLQRARGLIGAEKGDQREALPMDTEVYESPY
Pavo_cristatus
                                                                                                          353
                            FPKAGSKKLQTPIG---APSDDQTPFNPYVLQRARGLIGAEKGDQREALPMDTEVYESPY
                                                                                                          353
Gallus_gallus
Chelonia mydas
                            FPKPGSKKFHP--S---VPHDDSASFNPYVLQRTRALMGAEQGDQRDALPMDTEVYESPY
                                                                                                          353
                            FPKPGHRKSSPAQG---NRQESTVSFNPYEP--ELAPWAADKGPQREALPMDTEVYESPY
                                                                                                          352
Homo_sapiens
                            FPKPGHRKSSPAQG---NRQESTVSFNPYEP--ELAPWAAEKGPQREALPMDTEVYESPY
Pan troglodytes
                                                                                                          352
                            FPKPGHRKPSPAQG---NRPESTVSFNPYEP--EVAPWAAEKGPQREALPMDTEVYESPY
Macaca_mulatta
                                                                                                          352
                            FPKPGHRKPSPAQG---NRPESAVSFNPYEP--ELGPWTAEKGPQREALPMDTEVYESPY
Callithrix jacchus
                                                                                                          354
                            FPKPGHKKPAPPQG---SRPESTVSFNPYEP--TGGPWGPDRGLQREALPMDTEVYESPY
                                                                                                          346
Mus musculus
                            FPKPGHKKPPPPQG---SRPESTVSFNPYEP--TGGAWGPDRGLQREALPMDTEVYESPY
                                                                                                          346
Rattus norvegicus
                            FPKPGHRKTPPPPG---SRPESTVSFNPYEPE-RGGSWAPEKGPQREPLPMDTEVYESPY
                                                                                                          345
Heterocephalus_glaber
                            F<mark>PK</mark>RDHRKTRTSSG---NQVD<mark>SS</mark>TTF<mark>NPYEP</mark>--DRGPWANEREAQREALPMDTEVYESPY
Bos_taurus
                                                                                                          345
                            FPKPGHRKSSSSQG---NH<mark>PESSATSNPYEL--DRGTSATER</mark>DAQREAMPMDTEVYESPY
                                                                                                          352
Equus_caballus
                            FPKPGHRKAASSTG---SRPES--SFNPYEP--DRGPWATDRDAQREALPMDTEVYESPY
APRP--PGHHPGQD---TVARSSSLKNEYMR-----CGVEQGPSKDAMPMDTAVYESPY
FSKPGSKKSHP-----ERSANNFNPYVMRPKRTSVGFDAS-QKDAMPMDTGVYESPY
Canis_lupus_familiaris
                                                                                                          350
Rhinatrema_bivittatum
                                                                                                          317
Latimeria_chalumnae
                                                                                                          341
                            FPKPGNKKMTLSTAGAPRRHGSSTSINTYVHR-----PNAEVTMDSMPMDTDVYRGIY
Xenopus_tropicalis
                                                                                                          348
                              .....310......320......330......340......350......360
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	:*::* : * : * : ***** :: * **:*:**: * :	
Pavo muticus	ADPDEIKPKNVTLDRKLLTLEEGELGSGNFGTVKKGFYKMKKGAKPVAVKILKNESNDPA	413
Pavo cristatus	ADPDEIKPKNVTLDRKLLTLEEGELGSGNFGTVKKGFYKMKKGAKPVAVKILKNESNDPA	413
Gallus_gallus	ADPDEIKPKNVTLDRKLLTLEEGELGSGNFGTVKKGFYKMKKGAKPVAVKILKNESNDPA	413
Chelonia mydas	ADPEEIKPKNVSLDRKLLSLEEGELGSGNFGTVKKGLYMMKKGAKPVAVKILKNENNDPA	413
Homo sapiens	ADPEEIRPKEVYLDRKLLTLEDKELGSGNFGTVKKGYYOMKKVVKTVAVKILKNEANDPA	412
Pan_troglodytes	ADPEEIRPKEVYLDRKLLTLEDKELGSGNFGTVKKGYYQMKKVVKTVAVKILKNEANDPA	412
Macaca mulatta	ADPEEIRPKEVYLDRKLLTLEDKELGSGNFGTVKKGYYOMKKVVKTVAVKILKNEANDPA	412
Callithrix_jacchus	ADPEEIRPKEVYLDRSLLTLEDKELGSGNFGTVKKGYYOMKKVVKTVAVKILKNEANDPA	414
Mus musculus	ADPEEIRPKEVYLDRSLLTLEDNELGSGNFGTVKKGYYOMKKVVKTVAVKILKNEANDPA	406
Rattus norvegicus	ADPEEIRPKEVYLDRKLLTLEDNELGSGNFGTVKKGYYQMKKVVKTVAVKILKNEANDPA	406
Heterocephalus_glaber	ADPEEIRPKEVYLDRSLLTLEENELGSGNFGTVKKGYYOMKKGLKTVAVKILKNEANDPA	405
Bos taurus	ADPEEIRPKEVYLDRKLLTLEDKELGSGNFGTVKKGYYOMKKVVKTVAVKILKNEANDPA	405
Equus_caballus	ADPEEIRPKEVYLDRNLLTLEDNELGSGNFGTVKKGYYQMKKVVKTVAVKILKNEANDPA	412
Canis_lupus_familiaris	ADPEEIRPKEVYLDRKLLTLEDNELGSGNFGTVKKGYYQMKKVVKTVAVKILKNEANDPA	410
Rhinatrema bivittatum	ADPEEIRPKTVYLRREQLILEDIELGSGNFGTVKKGIYKMTRTEKQVAIKVLKNENNDPA	377
Latimeria_chalumnae	ADPEEIKPKTVYLKREMLILEDGELGSGNFGTVRKGIYKLTKTEKPVAVKVLKNESCDPS	401
Xenopus_tropicalis	EDPDEFRPMDGKISREQLTLFETELGSGNFGNVKKGELKTSKSKKPVAVKILKNDSNDES	408
xenopus_cropicaris	370380390400410420	400
	:::*** ** *** *:********* ******* * .***:* :::: *:	
Pavo muticus	IKDELLREANVMQQLDNPYIVRMIGICEAEAWMLVMEMAELGPLNKFLQKNRHVTEKNIT	473
Pavo_cristatus	IKDELLREANVMOOLDNPYIVRMIGICEAEAWMLVMEMAELGPLNKFLOKNRHVTEKNIT	473
Gallus_gallus	IKDELLREANVMQQLDNPYIVRMIGICEAEAWMLVMEMAELGPLNKFLQKNRHVTEKNIT	473
Chelonia mydas	VKDELLREANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKFLQKNRHVKEKNIT	473
Homo_sapiens	LKDELLAEANVMOOLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLOONRHVKDKNII	472
Pan_troglodytes	LKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHVKDKNII	472
Macaca mulatta	LKDELLAEANVMOOLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLOONRHVKDKNII	472
Callithrix_jacchus	LKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHVKDKNII	474
Mus_musculus	LKDELLAEANVMOOLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLOONRHIKDKNII	466
Rattus_norvegicus	LKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHIKDKNII	466
Heterocephalus_glaber	LKEELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGSLNKYLQQNRHVKDKNII	465
	LKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHVKDKNII	465
Bos_taurus	LKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHVKDKNII LKDELLAEANVMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHVKDKNII	472
Equus_caballus		472
Canis_lupus_familiaris	L <mark>KDELLAEAN</mark> VMQQLDNPYIVRMIGICEAESWMLVMEMAELGPLNKYLQQNRHVKDKNII IQDELLKEASVMQQLDNPYIVRMIGICEAEFWMLVMELADLGPLNKFLLKNKDITQINLT	437
Rhinatrema_bivittatum		461
Latimeria_chalumnae	IKDELLKEAHVMQQLDNPYIVRMIGICEAECWMLVMELAEQGPLNKYLQRNKDVSIKNIT	
Xenopus_tropicalis	MKDELLKEAKVMQLLNNPYIVRMLGICEGESWMLVMELAGLGPLNKFLVKNKNVTEHNVT	468
	430440450460470480	
	************ **************************	
Pavo muticus	ELVHQVSMGMKYLEENNFVHRDLAARNVLLVTQHYAKISDFGLSKALSADENYYKAQSHG	533
Pavo_cristatus	ELVHOVSMGMKYLEENNFVHRDLAARNVLLVTOHYAKISDFGLSKALSADENYYKAOSHG	533
Gallus_gallus	ELVHQVSMGMKYLEENNFVHRDLAARNVLLVTQHYAKISDFGLSKALSADENYYKAQSHG ELVHQVSMGMKYLEENNFVHRDLAARNVLLVTQHYAKISDFGLSKALSADENYYKAQSHG	533
	ELVHQVSMGMKYLEENNFVHRDLAARNVLLVTQHYAKISDFGLSKALASDENYYKAQSHG	533
Chelonia_mydas		
Homo_sapiens	ELVHQVSMGMKYLEESNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQTHG	532
Pan_troglodytes	ELVHQVSMGMKYLEESNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQTHG ELVHQVSMGMKYLEECNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQTHG	532 532
Macaca_mulatta		
Callithrix_jacchus	ELVHQVSMGMKYLEECNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQSHG	534
Mus_musculus	ELVHQVSMGMKYLEESNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQTHG	526
Rattus_norvegicus	ELVHQVSMGMKYLEESNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQTHG	526
Heterocephalus_glaber	ELVHQVSMGMKYLEECNFVHRDLAARNVLLVTQHYAKISDFGLSKALGADENYYKAQTHG	525
Bos_taurus	ELVHQVSMGMKYLEECNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADENYYKAQTHG	525
Equus_caballus	ELVHQVSMGMKYLEESNFVHRDLAARNVLLVTQHYAKISDFGLSKALRADESYYKAQTHG	532
Canis_lupus_familiaris		530
Rhinatrema_bivittatum	ELVHQVSMGMKYLEENNFVHRDLAARNVLLVTQHYAKISDFGLSKALNSDESYYKAKGHG	497
Latimeria_chalumnae	ELVHQV <mark>SMGMKYLEENN</mark> FVHRDLAARNVLLVTQHYAKISDFGL <mark>SK</mark> ALNADENYYKAKGTG	521
Xenopus_tropicalis	ELVHQVSMGMKYLEETNFVHRDLAARNVLLVTQHYAKISDFGLSKALESDENYYQAKTAG	528
	$\dots \dots 490 \dots \dots 500 \dots \dots 510 \dots \dots 520 \dots \dots 530 \dots \dots 540$	

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	:**:****::::: * * *:	
Pavo_muticus	KWPVKWYAPECMNFYKFSSKSDVWSFGVLMWEAFSYGQKPYKGMKGGEVAQMIERGERME	593
Pavo_cristatus	KWPVKWYAPECMNFYKFSSKSDVWSFGVLMWEAFSYGQKPYKGMKGGEVAQMIERGERME	593
Gallus_gallus	KWPVKWYAPECMNFYKFSSKSDVWSFGVLMWEAFSYGQKPYKGMKGGEVAQMIERGERME	593
Chelonia_mydas	kwpvkwyapecmnfykfssksdvwsfgvlmweafsfgqkpykgmkgsevaqmiergerme	593
Homo_sapiens	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	592
Pan_troglodytes	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	592
Macaca_mulatta	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	592
Callithrix_jacchus	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	594
Mus_musculus	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	586
Rattus_norvegicus	KWPVKWYAPECINYFKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	586
<pre>Heterocephalus_glaber</pre>	KWPVKWYAPECINYYRFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVTAMLEKGERMG	585
Bos_taurus	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVSAMLEKGERMG	585
Equus_caballus	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVSAMLEKGERMG	592
Canis_lupus_familiaris	KWPVKWYAPECINYYKFSSKSDVWSFGVLMWEAFSYGQKPYRGMKGSEVSAMLEKGERMG	590
Rhinatrema_bivittatum	KWPIKWYAPECINFFKFSSKSDVWSFGVLMWEAFSYGQKPYKGMKGNEVSQMIEIGLRMD	557
Latimeria_chalumnae	RWPVKWYAPECINYFKFSSKSDVWSFGVLMWEAYSYGAKPYKGMKGNEVSLMLENGERMS	581
Xenopus_tropicalis	KWPMKWYAPESLNYHKFSSKSDVWSFGVLMWEAYSYGLKPYPGMKGNEVTAFIESGNRLE	588
	550560570580590600	
	* * * * * * * * * * * * * * * * * * * *	
Pavo_muticus	RPEACPVEVYDLMKLCWTYSVDDRPGFIAVELRLRNYYYDISH 636	
Pavo_muticus Pavo cristatus	RPEACPVEVYDLMKLCWTYSVDDRPGFIAVELRLRNYYYDISH 636	
Gallus gallus	CPEACPVEVYDLMKLCWTYNVDDRPGFVAVELRLRNYYYDISH 636	
Chelonia mydas	SPEACPSEVYDLMKLCWTYKIDDRPGFSAVELRLRNYYYDISH 636	
Homo sapiens	CPAGCPREMYDLMNLCWTYDVENRPGFAAVELRLRNYYYDVVN 635	
Pan troglodytes	CPAGCPREMYDLMNLCWTYDVENRPGFAAVELRLRNYYYDVVN 635	
Macaca mulatta	CPAGCPREMYDLMNLCWTYDVENRPGFAAVELRLRNYYYDVVN 635	
Macaca_mulatta Callithrix_jacchus	CPAGCPREMYDLMNLCWTYDVENRPGFAAVELRLRNYYYDVVN 637	
Mus musculus	CPAGCPREMYDLMNLCWTYDVENRPGFTAVELRLRNYYYDVVN 629	
<u> </u>	CPPGCPREMYDLMNLCWTYDVENRPGFTAVELRLRNYYYDVVN 629 CPPGCPREMYDLMNLCWTYDVENRPGFAAVELRLRNYYYDVVN 629	
Rattus_norvegicus Heterocephalus glaber	CPSGCPREMYELMNLCWTYEVEKRPNFVAVELRLRNYYYDVVN 628	
	CPPGCPREMYELMTLCWTYDVENRPGFVAVELRLRNYYYDVVN 628	
Bos_taurus	CPPGCPREMYELMILCWIYDVENRPGF VAVELRLRNYYYDVVN 628	

CPAGCPREMYELMKLCWTYEVENRPGFVAVELRLRNYYYDVVN

APAKSPPEMYDLMRLCWTYK------

CPRRCPAEMYNLIKLCWTYKTEERPSFAVVELKLRSYYYDSSH610......620......630......640...

Canis_lupus_familiaris CPAGCPREMYELMKLCWTYEVDRRPGFEAVELRLRNYYYDVVN

Rhinatrema_bivittatum APANCPPEIYNIMKRCWTYNLEDRPGFTQVELKLRNYYYDISH

635

633

600

601

631

Equus caballus

Latimeria_chalumnae

Xenopus_tropicalis