

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/PTA... Tue Feb 14:21:45 2022

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                                :          .  :  :  :          :  .  **
Pavo_muticus                   -----MAESPEEV-----AVLVQRVVKDIRNAFK--RNPDIIDE 31
Pavo_cristatus                 -----MAESPEEV-----AVLVQRVVKDIRNAFK--RNPDIIDE 31
Gallus_gallus                  -----MAESPEEV-----AVLVQRVVKDIRNAFK--RNPDIIDE 31
Anas_platyrhynchos            -----MAESPEEV-----AVLVQRVVKDIRNAFA--RNPDIIDE 31
Chelonia_mydas                 -----MAESPEEV-----AVLVQRVVKDLNNAFK--RNPDIIDE 31
Mus_musculus                   -----MAESNEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Rattus_norvegicus             -----MAETNEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Bos_taurus                     -----MAETSEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Equus_caballus                 -----MAETSEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Canis_lupus_familiaris MEVEYAVVFIFVCFVYFFFSGFTETS-----LTLDNSLFNKKTATVHSLG DYHRDE 52
Homo_sapiens                   -----MAETSEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Pan_troglodytes               -----MAETNEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Macaca_mulatta                -----MAETSEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Callithrix_jacchus            -----MAETNEEV-----AVLVQRVVKDITNAFR--RNPDIIDE 31
Xenopus_tropicalis            -----MAEWKEEV-----EVLVQRVVKDITGAFR--RNPDIIDE 31
Latimeria_chalumnae           -----MAESDEEV-----DVLVQRVVKDITNAFR--RNPDIIDE 31
Rhinatrema_bivittatum         -----MVGNGECRLQKGGNGQTAREKMNGRKEARSKKDQVKRDE 41
1.....10.....20.....30.....40.....50.....60

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Pavo_muticus                   IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDTT 91
Pavo_cristatus                 IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDTT 91
Gallus_gallus                  IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDTT 91
Anas_platyrhynchos            IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELVDIT 91
Chelonia_mydas                 IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDIT 91
Mus_musculus                   IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELADVT 91
Rattus_norvegicus             IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Bos_taurus                     IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Equus_caballus                 IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Canis_lupus_familiaris        IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 112
Homo_sapiens                   IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Pan_troglodytes               IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Macaca_mulatta                IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Callithrix_jacchus            IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRTRKQWLNKDELIDVT 91
Xenopus_tropicalis            IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDVT 91
Latimeria_chalumnae           IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDVT 91
Rhinatrema_bivittatum         IGLIPCPEARYNRSPIVLVENKLGVESWCVKFLLPYVHNKLLLYRQRKQWLNKDELIDVT 101
.....70.....80.....90.....100.....110.....120

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*****: : :*:*** *****:***:
Pavo_muticus                   CTLLLLNPFFTAWNVRKELILSGTILSPLKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Pavo_cristatus                 CTLLLLNPFFTAWNVRKELILSGTILSPLKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Gallus_gallus                  CTLLLLNPFFTAWNVRKELILSGTILSPLKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Anas_platyrhynchos            CTLLLLNPFFTAWNVRKELILSGTILNPLKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Chelonia_mydas                 CTLLLLNPFFTAWNVRKELILSGTILSPVKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Mus_musculus                   CTLLLLNPFFTAWNVRKELILSGTILSPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLS 151
Rattus_norvegicus             CTLLLLNPFFTAWNVRKELILSGTILSPVKDLHLGKLALTKFPKSPETWIHRRWVLOQLS 151
Bos_taurus                     CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Equus_caballus                 CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Canis_lupus_familiaris        CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 172
Homo_sapiens                   CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Pan_troglodytes               CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Macaca_mulatta                CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Callithrix_jacchus            CTLLLLNPFFTAWNVRKELILSGTILNPIKDLHLGKLALTKFPKSPETWIHRRWVLOQLI 151
Xenopus_tropicalis            CTLLLLNPFFTAWNVRKELIQSGTILNPKDLQLGKLALTKFPKSPETWIHRRWVLOQLV 151
Latimeria_chalumnae           CTLLLLNPFFTAWNVRKELVESGALNPVKDLHLGKLALTKFPKSPETWIHRRWVLOQLT 151
Rhinatrema_bivittatum         CTLLLLNPFFTAWNVRKELIQARTLNPKDLHLGKLALTKFPKSPETWIHRRWVLOQLM 161
.....130.....140.....150.....160.....170.....180

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Pavo_muticus	Q	E	N	S	L	P	A	L	V	N	K	G	N	L	G	A	A	P	V	E	R	I	H	R	L	V	Q	E	M	D	V	C	S	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	N	V	G	K	L	211
Pavo_cristatus	Q	E	N	S	L	P	A	L	V	N	K	G	N	L	G	A	A	P	V	E	R	I	H	R	L	V	Q	E	M	D	V	C	S	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	N	V	G	K	L	211
Gallus_gallus	Q	E	N	S	L	P	V	L	V	N	K	G	N	L	G	A	A	P	V	E	R	I	H	R	L	V	Q	E	M	D	V	C	S	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	N	V	G	K	L	211
Anas_platyrhynchos	Q	E	N	S	L	P	T	L	V	N	K	G	N	L	G	A	A	P	V	E	R	I	H	R	L	V	Q	E	M	D	V	C	S	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	L	Q	H	V	G	K	L	211	
Chelonia_mydas	Q	E	N	S	L	P	T	L	V	T	K	N	L	G	T	I	P	V	P	E	R	I	Q	R	L	V	Q	E	M	D	V	C	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	L	Q	H	G	K	L	211			
Mus_musculus	Q	E	T	F	L	P	S	S	V	A	K	S	L	G	A	V	P	A	E	R	T	O	R	I	I	Q	E	E	M	E	V	C	S	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	N	V	A	K	L	211
Rattus_norvegicus	Q	E	T	S	L	P	S	S	V	A	K	S	L	G	V	V	P	A	E	R	T	O	R	I	I	Q	E	E	M	E	V	C	S	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	N	V	A	K	L	211
Bos_taurus	Q	E	T	S	L	P	S	F	M	T	K	N	L	G	I	I	P	A	E	R	T	O	Q	L	I	R	E	E	M	E	V	C	G	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	H	L	A	K	L	211
Equus_caballus	Q	E	T	S	L	P	S	F	V	N	K	N	L	G	T	I	P	A	E	R	T	O	R	L	I	R	E	E	M	E	V	C	G	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	H	L	A	K	L	211
Canis_lupus_familiaris	Q	E	T	S	L	P	S	F	M	M	K	N	L	G	T	I	P	A	E	R	T	O	R	L	I	R	E	E	V	C	G	E	A	A	G	R	Y	P	S	N	Y	N	A	W	S	H	R	I	W	V	L	Q	H	L	A	K	L	232		
Homo_sapiens	Q	E	T	S	L	P	S	F	M	T	K	N	L	G	T	I	P	T	E	R	A	O	R	L																																				

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Pavo_muticus	TTKI-----LLDELFSTKYWVSMHVS	DHSGFHYRQFLLKSLIG--RTVNDDNTILVONQM	263	
Pavo_cristatus	TTKI-----LLDELFSTKYWVSMHVS	DHSGFHYRQFLLKSLIG--RTVNDDNTILVONQM	263	
Gallus_gallus	TIKI-----LLDELSSTKYWVSMHVS	DHSGFHYRQFLLKSLIG--RTVNDDNTILVONQM	263	
Anas_platyrhynchos	TVKI-----LLDELASTKYWVSMHVS	DHSGFHYRQFLLKSLIS--RTVNDNNTILVRNQM	263	
Chelonia_mydas	DVKI-----LLDELSTKHWVSMHVS	DHSGGFHYRKFLIKSLIG--RTVTDNSTILVONQL	263	
Mus_musculus	DLKI-----LLDELSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTITDSAVPOHNLSL	263	
Rattus_norvegicus	DLKI-----LLDELSSTKHWASVHVS	DHSGFHYRQFLLKSLIS--QTITDNAVPOHNLSL	263	
Bos_taurus	DTKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVTDGSVLEQSPNL	263	
Equus caballus	DVKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVIDGSVLEQNPL	263	
Canis_lupus_familiaris	DVKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVIDGSVLEQGPNL	284	
Homo_sapiens	DVKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVIDSSVMEQNPL	263	
Pan_troglodytes	DVKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVIDSSVMEQNPL	263	
Macaca_mulatta	DVKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVIDSSVMEQNPL	263	
Callithrix_jacchus	DVKI-----LLDELSSSTKHWASMHVS	DHSGFHYRQFLLKSLIS--QTVIDSSVMEQNCL	263	
Xenopus_tropicalis	NAKL-----LIDELSSSTKHWVSMHVS	DHSGFHYRQFLLKSLLS--KTCLKSDSNVT-ELL	262	
Latimeria_chalumnae	SVKL-----LLDELSSSTKYWVSMHVS	DHSGGFHFROFLLKALVSNARSTTSKLTIAALHPL	265	
Rhinatrema_bivittatum	DVKLAYPLQTLINELSSSTKHWAMHIS	DHSGFHYRQFLLKCLMD--KAVTGGSTPLDALP	279	
250.....260.....270.....280.....
			290.....300

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Pavo_muticus	GNEQNSSLQTEEECEGAEAVCVEEQSV	IPRYLEEELDFCTDLIDTYPGHETLWCHRRRV	323				
Pavo_cristatus	GNEQNSSLQTEEECEGAEAVCVEEQSV	IPRYLEEELDFCTDLIDTYPGHETLWCHRRRV	323				
Gallus_gallus	GNEQNSSLQTEEECEGAEAVCVEEQSV	IPRYLEEELDFCTDLIDTYPGHETLWCHRRRV	323				
Anas_platyrhynchos	VNEQNP	SLQKEEEGEAEACAEQSVDPHYLEEELDLCTDLIDAYPGHETLWCHRRRV	323				
Chelonia_mydas	VNEPTPSL	PKDKNEAEAVCTEELRVDLPHLLEEELDLCTDLIDTFPGHETLWCYRRHV	323				
Mus_musculus	KSEPK-----DEA-----AAASTEEPSV	NLPQLLEEEVEFCTDLIDSYPGHETLWCHRRHV	314				
Rattus_norvegicus	KCEPKE----AAA-----AAASAEEPSV	SLPQLLEEEVEFCTDLIDSYPGHETLWCHRRHV	315				
Bos_taurus	RSESTVVL	PKDEE----AVASAEESRINLPHLLEEVEFSTD	LIDAYPGHETLWCHRRHV	319			
Equus_caballus	RSEPASVLP	PKDEE----AAASTEEP	RINLPHLLEEVEFSTD	LIDTYPGHETLWCHRRHI	319		
Canis_lupus_familiaris	RSDPALVHP	PKDEE-----EAASTEEARINLPHLLEEVEFSTD	LIDSYPGHETLWCHRRHV	340			
Homo_sapiens	RSEPALVPP	KDEE----AAVSTEEP	RINLPHLLEEVEFSTD	LIDSYPGHETLWCHRRHI	319		
Pan_troglodytes	RSEPALVPP	KDEE----AAVSTEEP	RINLPHLLEEVEFSTD	LIDSYPGHETLWCHRRHI	319		
Macaca_mulatta	RSEPALVLP	PKDEE----AAVSTEEP	RINLPHLLEEVEFSTD	LIDSYPGHETLWCHRRHI	319		
Callithrix_jacchus	RSEPALVLP	PKDEE----AAASTEEP	RINLPHLLEEVEFSTD	LIDSYPGHETLWCHRRHI	319		
Xenopus_tropicalis	VNEENLCL	PREEE-----ANWNQICFDLP	FLLEEMELNRELVDSYPGHETLWCHRRQI	316			
Latimeria_chalumnae	TDEQIILSL	PKKEG-----ANAELQRLDIP	QLFEEELCTSLIESFPGHETLWCHRRHV	319			
Rhinatrema_bivittatum	TNEQTRCLP	KSEG-----THDELQRVNIP	LLLEEMELMSDLIESYPGHETLWCHRRQV	333			
310.....320.....330.....340.....350.....360						

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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* : *                               :.*::*. : :*
Pavo_muticus      FYLQHHLTNRLPLLSV-VGSSVDSSDETLHNSHP--NPATGRMAQAMDVDGLNESSSKQG 380
Pavo_cristatus    FYLQHHLTNRLPLLSV-VGSSVDSSDETLHNSHP--NPATGHMAQAMDVDGLNESSSKQG 380
Gallus_gallus     FYLQHHLINKLPLLSV-VVSSVDSSDETLHNSHP--NPATSHMAQAMDVDGLNESSSKQG 380
Anas_platyrhynchos FYLQHHLGNRLPLLSA-VVSSVDSSDEAFRNSHP--CPATRHQAQAMDVDGLSEICKQG 380
Chelonia_mydas    FYLQHHLNKKIPLPNV-RLTSVDSSDGTILNNSHP--STAVSHVTHAMVDVDGLNDS-SKQG 379
Mus_musculus      FYLQHHLNGRLPPNLT-HLSPADCPGGALNDSLQ--IPTSPQLSQAMEVDGLSDS-SKQG 370
Rattus_norvegicus FYLQHHLNGRLPPSLT-PLSPADCSGAALNDLHQ--IPTSPQLSQAMEVDGLSDS-SKQG 371
Bos_taurus        FYLQHHLNGRFPHSV-QLSPADSPGGTILSDLHG--IPAGPHTSQAMEVDGLSDF-SKQG 375
Equus_caballus    FYLQHHLNGRFPHSV-QLSPADSPGGTILSDLQ--VPAGPHTSQAMEVDGLNDC-SKQG 375
Canis_lupus_familiaris FYLQHHLSGRFSHSV-QLSPADSPGGTILSDSHL--TPTGTHVTSQAMEVDGLNDC-SKQG 396
Homo_sapiens      FYLQHHLN-----AGSQLSQAMEVDGLNDS-SKQG 348
Pan_troglodytes   FYLQHHLNGRFPHSMT-QLSPADSPGGTILSDLHL--IPAGSQLSQAMEVDGLNDS-SKQG 375
Macaca_mulatta    FYLQHHLNGRFPHSMT-QLSPADSPGGTILSDLHL--IPAGSQLSQAMEVDGLNDS-SKQG 375
Callithrix_jacchus FYLQHHLNGRFPQSM-QLSPADSPGGTILSDLHL--IPAGSQLSQAMEVDGLNDS-SKQG 375
Xenopus_tropicalis FNVHQLLLEQSQSATPQPTSGSITDGSIGNISHLS-TPFQSYVNNPMDIDGMSDF-NKQG 374
Latimeria_chalumnae FYLWHCWNKHHKASV-QLQSINSSDGTILNQLQA--GTAGSHLTQAMEVDGTVDL-SKQA 375
Rhinatrema_bivittatum FCLLHQLSTECLEHAASRPICGASNGNRITLNGSCIGAPALLCHPSQAMDVDSGVDG-SRQH 392
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      YTQETKRLKRAPMQDSFGPEMEYRFIDKVLSTCRDVDQARFATAYRKWLVTFLDQ 435
Pavo_cristatus    YTQETKRLKRAPMQDSFGPEMEYRFIDKVLSTCRDVDQARFATAYRKWLVTFLGQ 435
Gallus_gallus     YTQETKRLKRAPMQDSLGPEVEYRFIEKVLSTCRDVDQARFATAYRKWLVTFLGQ 435
Anas_platyrhynchos YTQEKRLKRAPLQDSFGPETEYRFIDKVLSTCRDADQARFATAYRKWLVTFLGQ 435
Chelonia_mydas    YTQEIKRLKRAPIQDSLGLEMEYRFIDNILATCRDVEQARFATAYRKWLVTFLGP 434
Mus_musculus      YSQETKRLKRTPAPDSLGLEMEHRFIDQVLSTCRNVEQVRYANAYRKWLVTLSQ- 424
Rattus_norvegicus YSQETKRLKRTPAPDSLGLEMEHKFIDQVLSTCRNVEQARYANAYRKWLVTLSQ- 425
Bos_taurus        YSQEIKRLKRTPAPDSLGLEMEHRFIDQVLSTCRNVEQARFANAYRKWLVTLSQ- 429
Equus_caballus    YSQETKRLKRTPAPDSLGLEMEHRFIDQVLSTCNVEQARFANAYRKWLVTLSQ- 429
Canis_lupus_familiaris YSQETKRLKRTPAPDSHGLEMEHRFIDQVLSTCRNVEQARFANAYRKWLVTLSQ- 450
Homo_sapiens      YSQETKRLKRTPVPDSLGLEMEHRFIDQVLSTCRNVEQARFASAYRKWLVTLSQ- 402
Pan_troglodytes   YSQETKRLKRTPVPDSLGLEMEHRFIDQVLSTCRNVEQARFASAYRKWLVTLSQ- 429
Macaca_mulatta    YSQETKRLKRTPAPDSLGLEMEHRFIDQILSTCRNVEQARFASAYRKWLVTLSQ- 429
Callithrix_jacchus YSQETKRLKRTPAPDSLGLEMEHRFIDQVLSTCRNVEQARFANAYRKWLVTLSQ- 429
Xenopus_tropicalis YTQETKRLKRAPVQDSLNFDSLFINCVLTNCCSPEQSRFAASYRKWLLSLKGH 429
Latimeria_chalumnae YTQETKRLKRGPPQQTHGLAAEHRFIDNILTGyrDAEQARFATAYKKWLDIVIGQ 430
Rhinatrema_bivittatum YTQEIKRLKRGPEQDYLGVGAEQRFADDILSACRNPEQARLAAAYRKWLVTFLGQ 447
.....430.....440.....450.....460.....470.....

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