

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/C80H48pep Tue Feb 1 11:34:29 2022

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Species	Sequence	Position
Homo_sapiens	-----	
Pan_troglodytes	-----	
Macaca_mulatta	-----	
Bos_taurus	-----	
Equus_caballus	MAPGRDTGQTTPPWGGGELLVROEEAKGMPFFLGKGRNERERESHKSNLFSVPVSRFKPH	60
Mus_musculus	-----	
Heterocephalus_glaber	-----	
Canis_lupus_familiaris	-----	
Pavo_muticus	-----	
Pavo_cristatus	-----	
Gallus_gallus	-----	
Rhinatrema_bivittatum	-----	
Xenopus_tropicalis	-----	
	1.....10.....20.....30.....40.....50.....60	

Homo_sapiens	-----MAICPELAOTDKSALANLSD	DETETLKN	27
Pan_troglodytes	-----MAICPELAOTDKSAVANLSD	DETETLKN	27
Macaca_mulatta	-----MAICPELAOTDESALANLSD	DETETLKS	27
Bos_taurus	-----MADLS--	KETLES	11
Equus_caballus	ICKAYLIVEERLEEELPRSLILRTMREDTEPGDSEGGKLAQADIRAMADLC--	NETFKS	118
Mus_musculus	-----MGWPPAQKPEDSKEEHGGPAQTDVCATQVSEEFPGS		36
Heterocephalus_glaber	-----MGTSAMTHLP--		10
Canis_lupus_familiaris	-----MADLPD--	GP	8
Pavo_muticus	-----MTTASSDGSGDYEKQQKELSWSYGSSVPDYSEDITWEPFSEEEV		43
Pavo_cristatus	-----MTTASSDGSGDYEKQQKELSRSYGSSVPDYSEDITWEPFSEEEV		43
Gallus_gallus	-----MTTTSDDRSADYEKQQKELSRSYGSSVLDYSEDITWEPFSEEEV		43
Rhinatrema_bivittatum	-----MSDELGLARSREELVKAGQSPSSNISEHSQEAALRSLTEENGCSWG		46
Xenopus_tropicalis	-METGACMRRSLMDGLSEDRESDIYEEHIVQNSSPRRELGHDSYSESFESLITDSSEKDE		59
70.....80.....90.....100.....110.....120		

Homo_sapiens	STDEVQTSSSFSSSGGRQSPLTSGSKLEREKQTPSLEQGDTQSELLDYK-NYEKKLSKK	86
Pan_troglodytes	FTDEVQTSSSFSSSGGRQSPLTSGSKLEREKQTPSLEQGDTQSELLDYK-NYEKKLSKK	86
Macaca_mulatta	FTDEVQTSSSFSSSGGRQSPLTSGSKLEREKQTPSLEQEDKSELDFK-NYEKKLSKK	86
Bos_taurus	LTDEVKSSGFSFGSVLQPWSYASGSKSESGLSPSRSEYGDNQSELSDFK-ANVKKLSRK	70
Equus_caballus	FTDEVQRSGSFSFSERLQPWPHASGSKPESGKPPTYLEYRDKOSELSEYK-NYEEKFSRK	177
Mus_musculus	CADEVLSGGSISSFGELOSYSHTSESPVEIKTPTTSSEEQDEQSELSLLQ-KDENKLSEM	95
Heterocephalus_glaber	FTNEVQN--SLSSSGGRQTWSHASEQLNTEPTTSLDEQDKOSELSESK-NNEMKLSFK	67
Canis_lupus_familiaris	VADGAORSSSSSPGGPOPRAASGSOPERGR-AAHVGHGDQAELSSK-KNETTFITK	66
Pavo_muticus	ACCORESKSSELYCSTEDTERSAVLDPWESMLWLAGQSHAEEQSEVVDSA-AAERDFIGK	102
Pavo_cristatus	ACCOHESKSSELYCSTEDTERSAVLDPWESMLWLAGQSHAEEQSEVVDSA-AAERDFIGK	102
Gallus_gallus	ACCOHESKSSELYCSTEDTKHSVLDPWESMLTLAQSHAEEKSEVVDSA-AAERDFTIGK	102
Rhinatrema_bivittatum	YENESFESCSDYGESELSSVSEALNSKDNGILSATLQVYKDEKPEVPDSE-LVORALLCK	105
Xenopus_tropicalis	SEPFKSYSSSEQSNSATVSSEHGSGDVSAASENGSDHISGEDSEVGYPANTHCODLIKK	119
130.....140.....150.....160.....170.....180	

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Homo_sapiens	WINYLK	KD	S	N	F	E	R	H	Q	P	D	T	K	L	-----	P	T	E	I	T	R	V	S	D	E	E	L	N	A	L	S	Y	C	T	127																			
Pan_troglodytes	WINYLK	KD	S	N	F	E	R	H	Q	P	D	T	K	L	-----	P	T	E	I	T	R	V	S	D	E	E	L	N	A	L	S	Y	C	T	127																			
Macaca_mulatta	WINYLK	R	K	D	S	D	F	E	R	H	Q	P	D	T	K	L	-----	Q	T	E	I	T	Q	V	S	D	E	E	L	N	A	L	S	Y	C	T	127																	
Bos_taurus	WIHNLK	G	K	E	T	N	S	E	Q	Y	R	P	D	T	N	H	-----	Q	T	E	I	T	Q	A	S	P	E	E	L	N	A	L	S	F	C	T	111																	
Equus_caballus	WINHLK	G	K	E	T	N	S	E	Q	Y	Q	P	D	T	K	L	-----	Q	T	E	I	T	R	A	S	E	G	E	L	N	A	L	S	F	C	T	218																	
Mus_musculus	WINHLK	S	K	E	I	H	S	E	R	S	Q	P	D	R	R	L	-----	P	P	E	I	P	K	E	S	A	E	E	L	D	A	L	S	F	C	T	136																	
Heterocephalus_glaber	WINYLK	G	K	E	T	N	S	G	R	H	E	P	H	N	K	L	-----	Q	T	E	I	T	R	V	P	N	E	E	A	H	A	R	S	F	C	T	108																	
Canis_lupus_familiaris	WIRYL	R	G	O	E	T	S	S	G	O	Y	G	S	D	A	R	R	-----	Q	A	E	S	T	R	V	P	D	E	E	L	N	A	L	S	F	C	A	107																
Pavo_muticus	LIDVLK	N	K	E	A	G	L	K	Q	E	K	F	V	I	K	N	-----	H	A	E	I	T	L	S	E	E	E	L	D	A	L	S	F	C	I	143																		
Pavo_cristatus	LIDVLK	N	K	E	A	G	L	K	Q	E	K	F	V	I	K	N	-----	H	A	E	I	T	L	S	E	E	E	L	D	A	L	S	F	C	I	143																		
Gallus_gallus	LIDVLK	N	K	E	A	G	I	K	Q	E	K	F	V	I	K	T	-----	H	A	E	I	T	L	S	E	E	E	L	D	A	L	S	F	C	I	143																		
Rhinatrema_bivittatum	WIGIL	O	D	K	E	H	G	V	R	H	Q	R	V	A	K	R	-----	Q	T	G	A	T	E	A	A	G	---	D	A	L	R	T	F	C	S	143																		
Xenopus_tropicalis	WIENL	O	F	K	H	A	C	A	S	A	A	R	T	N	V	K	K	S	R	N	A	T	A	L	P	G	O	E	S	P	E	E	T	F	G	O	E	T	A	E	I	A	E	K	E	T	S	L	H	T	Y	C	L	179
	190	200	210	220	230	240																																										

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Homo_sapiens      MKINLIHRRGDSKKKTSSRHKKLHLGLDVEASERDAFSCSTVPDELLNRIYFKNMRTTPKQ 187
Pan_troglodytes   MKINLIHRTGDSKKKTSSRHKKLHLGLDVEATERDALSCSTVPDELLNRIYFKNMRTTPKQ 187
Macaca_mulatta    MKINLIHRRGDSKKKTSSRHKKLYVGLDAEAAERDALSGTVPDELLNRIYFKNMRTTPKQ 187
Bos_taurus       VKVNLIHHRANSKGGKSSRHKKLQLGPEAAEPEVDALKCTVPDELLNRIYFKNMRTTPKQ 171
Equus_caballus    IKINLIHRRANSKEKKSSRHKKLQFTLDAEPSERDVLNCTVPDELLNRVYLKNMRTIAKQ 278
Mus_musculus      KKVNLIHQRQDLRAKSNRPKRLQLRWIAETSEVDAFNCTIPDELWNRIYLENTTRATLAY 196
Heterocephalus_glaber IKINLIHHRMNLKERSSRHKKLRLNNEEESIDALNCTVPDELLSRVYFKNMNVILKQ 167
Canis_lupus_familiaris VKINLIQHRANSKEKKSSGRQKPLRLLEAGASEGDALTCTVPDELVNRIYLNMRTPAKQ 167
Pavo_muticus      IKIRRVLQELISKQTSGGKSRKQOHGFTSKASEASDLNCTVPNGIMNRIRLKNFRETMRQ 203
Pavo_cristatus    IKIRRVLQELISKQTSGGKSRKQOHGFTSKASEASDLNCTVPNGIMNRIRLKNFQETMRQ 203
Gallus_gallus     IKIRRVLPelikQASGGKSRKQOHGLISKASEANDLTCLVPDGLMNRIRLKNFRETIKQ 203
Rhinatrema_bivittatum LKINQIHLLNSQQRNGSRQRRQLGVHPKPKPMASDRTCAGPGOLMNRVQLKNIQETMKK 203
Xenopus_tropicalis MKIKHICSQNAHKQDPCPTN-----NSKSFMTEDLEDVVPQQLNRLHLENMKETFKQ 234
.....250.....260.....270.....280.....290.....300

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Homo_sapiens      EAAAKQHISYQCPYCNKRKRAELALSAFLKQKKTLLLESFLLQERIDEHLHTKDFTLTRIGEA 247
Pan_troglodytes   EAAAKQHISYQCPYCNKRKRAELALSAFLKQKKTLLLESFLLQERIDEHLHTKDFTLTRIGEA 247
Macaca_mulatta    EAAAKQHISYQCPDCNKRKRAELALSAFLKQKKTLLLESFLLQEKIDEHLHTKDFTLTRIGEA 247
Bos_taurus       VGTAKQHISYQCPDCNKRKRAELALSAFLKQKKTLLLESFLLQEKIDEHLHTKDFTLTVREA 231
Equus_caballus    VATAKQHISYQCPSCNKRKRAELALSAFLKQKKTLLLESFLLQEKIDEHLHTKDFTLTVGEV 338
Mus_musculus      IGAITQHISYQCPSCNKRKRAELALSAFLRRRKTLLQSLLQEKIDEHLHTKDFTLTVGEA 256
Heterocephalus_glaber MEAAKQHILSQCPSCNKRKRAELALSAFLRQKKTLLLESFLLQEKIDEYLHTDFTLTVGEA 227
Canis_lupus_familiaris GATAKQHISWRCLHCNKRKRAELALSAFLRRRKTLLLESFLLQDKIDKHLTKDFTLTVGDA 227
Pavo_muticus      VTEAQVHKSSSLCPDCKKKKAEAKKAFRLQKVLMLERALLQEKLEEQIYSRDVLTLIGET 263
Pavo_cristatus    VTEAQVHKSSSLCPDCKKKKAEAKKAFRLQKVLMLERALLQEKLEEQIYSRDVLTLIGET 263
Gallus_gallus     VTEAQVHKSSSLCPDCKKKKAEALAEIARLQKILMERALLREKLEEQIYSRDVLTKLIGET 263
Rhinatrema_bivittatum VADIKMHQPSKCPDCCRKKGELAKIEFLRRRTAMQTILLREKIEEELFVRDSTLIGEI 263
Xenopus_tropicalis VAKTGMHQPSTCPHCTTKRAELAKCEFVRRRTKLEASLLQSKMEEHLYSKDFTLTCIGEI 294
.....310.....320.....330.....340.....350.....360

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Homo_sapiens      HQDFPRLSDDPRIIWKRLTE-KSHIRYSGFERSETEQKLORDGNSACHLPFSLPFLKRLT 306
Pan_troglodytes   HQDFPRLSDDPRIIWKRLTE-KSHIRYSGFERSETEQKMORDGNSACHLPFSLPFLKRLT 306
Macaca_mulatta    HQDFPRLSDDPRIIWKRLTG-KSHIRYSGFKRSDTEQKMORDGNSACHLPFATSQATYSN 306
Bos_taurus       HQSLPRLSDDPRIIWERLNERKVKLETLVFERSDIQKM----- 270
Equus_caballus    HQGLPRLSDDPRIIWKRLSE-KSQIGYSGFERSDREQEMXQSGDNVCHXTFSLPFLKLLT 397
Mus_musculus      HQGFPRLSDDPRIIWKRLTE-KMLKGSSGFGRAYSKOV----- 293
Heterocephalus_glaber HQALPRLLEDPRIIWKRLNE-KTQIQNCSFER----- 258
Canis_lupus_familiaris HRGLPRLSDDPRIIWKRLNE-QSQIRHS--ERLTF----- 259
Pavo_muticus      LRSFPKLSLSDPRNLWQKLKG-KAEGMTTFCEHLKSASLE----- 302
Pavo_cristatus    LRSFPKLSLSDPRNLWQKLKG-KAEGMTTFCEHLKSASLE----- 302
Gallus_gallus     LRSFPKLSLSDPRNLWQKLKG-KAEGTTAFCEHLKSASLKE----- 303
Rhinatrema_bivittatum HQTLPRLSEDPKIIWQRLFKAGCKA----- 288
Xenopus_tropicalis HQSLPRLTDGSSSTIWQRLYASSKKT----- 319
.....370.....380.....390.....400.....410.....420

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Homo_sapiens      LIKPELVIVNDNV 319
Pan_troglodytes   LIKPELVIVNDNV 319
Macaca_mulatta    QTR-----AGDC- 313
Bos_taurus       ----- 270
Equus_caballus    LTKLEMVFIHDNV 410
Mus_musculus      ----- 293
Heterocephalus_glaber ----- 258
Canis_lupus_familiaris ----- 259
Pavo_muticus      ----- 302
Pavo_cristatus    ----- 302
Gallus_gallus     ----- 303
Rhinatrema_bivittatum ----- 288
Xenopus_tropicalis ----- 319
.....430...

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