## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep\_msa/CGGBPd: flsue Feb 111:42:17 2022 Page 1 of 2

	**. : . :. : :: :: * **:** : : :	
Gallus_gallus	MERFGVKSTPSRNRSKTALYVTPQDRVTEFGSELHEDGGKLFCTSCNVV	49
Pavo_cristatus	MERFGVKSTPSRNRSKTALYVTPQDRVTEFGSELHEDGGKLFCTSCNVV	49
Pavo muticus	MERFGVKSTPSRNRSKTALYVTPQDRVTEFGSELHEDGGKLFCTSCNVV	49
Chelonia mydas	MERFGVKAPPSRNRSKTALYVTPRDRVTEFGSELHEDGGKLFCTSCNVV	49
Callithrix jacchus	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Felis_catus	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Equus_caballus	merfvvtapparnrsktalyvtpldrvtefggelhedggklfctscnvv	49
Pan_troglodytes	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Bos_taurus	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Canis_lupus_familiaris	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Rattus_norvegicus	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Homo_sapiens	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Heterocephalus_glaber	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Macaca_mulatta	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Mus_musculus	MERFVVTAPPARNRSKTALYVTPLDRVTEFGGELHEDGGKLFCTSCNVV	49
Rhinatrema_bivittatum	MQAEKERVDICKAWVKTLAGANIPLSKIEHPLVREFLNSRVRNGGAIPGRTQLTETYLPE	60
	1102030405060	
Callua callua	: * . * . : . * * . : . * . : . * * * *	100
Gallus_gallus Pavo cristatus	LNHVRKSAINDHLKSKTHTKRKAEFEEQNVRKKQRTLTASLQCNSTAQTEKTSVIQDFVK LNHVRKSAINDHLKSKTHTKRKAEFEEQNVRKKQRTLTASLQCNSTAQTEKTSVIQDFVK	109 109
Pavo_cristatus Pavo_muticus	LNHVKKSAINDHLKSKTHTKKKAEFEEQNIRKKQRTLTASLQCNSTAQTEKTSVIQDFVK LNHVRKSAINDHLKSKTHTKRKAEFEEQNIRKKQRTLTASLQCNSTAQTEKTSVIQDFVK	109
Chelonia mydas	LNHVKKSAINDHLKSKTHTKKKAEFEEQSVRKKQRTLTASLQCNSATQTEKISVIQDFVK	109
Callithrix_jacchus	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Felis_catus	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Equus_caballus	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Pan_troglodytes	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Bos taurus	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Canis_lupus_familiaris		109
Rattus_norvegicus	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Homo_sapiens	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Heterocephalus_glaber	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSTAQTEKVSVIQDFVK	109
Macaca mulatta	LNHVRKSAISDHLKSKTHTKRKAEFEEONVRKKORPLAASLOCNSTAOTEKVSVIODFVK	109
Mus_musculus	LNHVRKSAISDHLKSKTHTKRKAEFEEQNVRKKQRPLTASLQCNSPAQTEKASVIQDFVK	109
Rhinatrema_bivittatum	VYHEEKEKLQLMLKDQKVAIIFDETCDDDARSVLNVLFAPLEPDCTGHVKSFLANIVFLD	120
	$\ldots \ldots 70 \ldots \ldots 80 \ldots \ldots 90 \ldots \ldots 100 \ldots \ldots 110 \ldots \ldots 120$	
	<u>: : :*** : : ::: *:</u>	
Gallus_gallus	MCEANIPLEKADHPSVRAFLSRYVKN	136
Pavo_cristatus	MCLEANIPLEKADHPSVRAFLSRYVKN	136
Pavo_muticus	MCLEANIPLEKADHPSVRAFLSRYVKN	136
Chelonia_mydas	MCLEANIPLEKADHPSVRAFLSRHVKN	136
Callithrix_jacchus	MCLEANIPLEKADHPAVRAFLSRHVKN	136
Felis_catus	MCLEANIPLEKADHPAVRAFLSRHVKN MCLEANIPLEKADHPAVRAFLSRHVKN	136
Equus_caballus	MCLEANIPLEKADHPAVRAFLSRHVKN MCLEANIPLEKADHPAVRAFLSRHVKN	136
Pan_troglodytes	MCLEANIPLEKADHPAVRAFLSRHVKN	136 136
Bos_taurus	MCLEANIPLEKADHPAVKAFLSRHVKN MCLEANIPLEKADHPAVKAFLSRHVKN	136
Rattus norvegicus	MCLEANIPLEKADHPAVKAFLSKHVKN	136
Homo_sapiens	MCLEANIPLEKADHPAVKAFLSRHVKN	136
Heterocephalus glaber	MCLEANIPLEKADHPAVKAFLTRHVKN	136
Macaca mulatta	MCLEANIPLEKADHPAVKAFLIKHVKN	136
Mus musculus	MCLEANIPLEKADHPAVRAFLSRHVKN	136
Rhinatrema_bivittatum	VVNHLIVAQAVVKAINGYQIDYNSNLVIDTDNDSYMEKAFNSVLSTLFPNSVHITCLAHI	180
	130140150160170180	_00
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## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep\_msa/CG**GBPd:** fisue Feb 1 11:42:17 2022 Page 2 of 2

	* *: :. ** ::	: : *	<b>::::</b>
Gallus gallus	GSSIPKSEQLRKAYLP	-DGYDNEN	-QLINTEDR 167
Pavo cristatus			-QLINTEDR 167
Pavo muticus			QLINTEDR 167
Chelonia mydas			QLLSTEDC 167
Callithrix_jacchus			QLLNSQDC 167
Felis catus			QLLNSQDC 167
Equus caballus	GGSIPKSDOLRRAYLP	-DGYENEN	QLLNSQDC 167
Pan_troglodytes			QLLNSQDC 167
Bos taurus			QLLNSQDC 167
			QLLNSQDC 167
Rattus norvegicus			OLLNSODC 167
Homo sapiens	GGSTPKSDOLRRAYLP	-DGYENEN	QLLNSQDC 167
Heterocephalus_glaber	GGSTPKSDOLRRAYLP	-DGYENEN	QLLNSQDC 167
Macaca mulatta	GGSTPKSDOLRRAYI.P	-DGYENEN	QLLNSQDC 167
Mus musculus	GGSTDKSDOLPRAYLD	-DCVENEN	QLLS <mark>SQD</mark> C 167
Rhinatrema bivittatum			RFLNKKVQEKSLAAKASMPPSPV 240
KIIIIIaci ema_biviccacum			220230240
			220230240
Gallus_gallus Pavo cristatus			107
Pavo_muticus			167
<del>-</del>			167
Pavo_muticus			167 167
Pavo_muticus Chelonia_mydas			167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus			167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus			167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus			167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus			167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris			167 167 167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris Rattus_norvegicus			167 167 167 167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris			167 167 167 167 167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris Rattus_norvegicus Homo_sapiens	3		167 167 167 167 167 167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris Rattus_norvegicus Homo_sapiens Heterocephalus_glaber Macaca_mulatta	3		167 167 167 167 167 167 167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris Rattus_norvegicus Homo_sapiens Heterocephalus_glaber Macaca_mulatta Mus_musculus	3		167 167 167 167 167 167 167 167 167 167 167 167
Pavo_muticus Chelonia_mydas Callithrix_jacchus Felis_catus Equus_caballus Pan_troglodytes Bos_taurus Canis_lupus_familiaris Rattus_norvegicus Homo_sapiens Heterocephalus_glaber Macaca_mulatta	3	EFFIEECNSNSPVSN	167 167 167 167 167 167 167 167 167 167 167 167 167 167