

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Pavo_muticus	-----MPKVK-----GGKRPRQ--QLQEGRANG-----	21
Pavo_cristatus	-----MPKVK-----GGKRPRQ--QLQEGRANG-----	21
Gallus_gallus	-----MPKVK-----GGKRPRQ--QLQEGRANG-----	21
Chelonia_mydas	-----MPKVK-----AEKRCRP--QRREGQGGP-----	21
Homo_sapiens	-----MPKVKSGAIGRRRRGRQEQRRRELKSAG-----	26
Pan_troglodytes	-----MPKVKSGAIGRRRRGRQEQRRRELKSAG-----	26
Callithrix_jacchus	-----MPKVKSGAVVRRRRGRQEQHREVKSAGGADPLEEAGVGSGLPAGPSLGCGRP	52
Mus_musculus	-----MPKAKSAASSRRRRDRQEQRRRELKRAG-----	26
Rattus_norvegicus	-----MPKAKSAASSRRRRDRQEQRRRELKRAG-----	26
Bos_taurus	-----MPKIKSAASGRRRRERQOQRGOLKSAG-----	26
Equus_caballus	-----MPKIKSGASGRHRRERQEQRRRELKSAG-----	26
Heterocephalus_glaber	MLGQLPAEMPVKVSGASVHRRQRQEQRRRELQSAG-----	34
Latimeria_chalumnae	-----	
Xenopus_tropicalis	-----MPKVR-----AEKKTRR--HQEVKSQG-----	20
Rhinatrema_bivittatum	-----MPKIK-----GKKKSKQ--HHDVRSQG-----	20

1.....10.....20.....30.....40.....50.....60

Pavo_muticus	-----ILFNTGAGQHILKNPLVVNSIIEKAALRRITDVLLEVGPPTGNL	64
Pavo_cristatus	-----ILFNTGAGQHILKNPLVVNSIIEKAALRRITDVLLEVGPPTGNL	64
Gallus_gallus	-----ILFNTGAGQHILKNPLVVNSIIEKAALRRITDVLLEVGPPTGNL	64
Chelonia_mydas	-----IMFNTGIGQHILKNPLIVNNIIEKAALRPTDVLLEVGPPTGNL	64
Homo_sapiens	-----GLMFNTGIGQHILKNPLIINSIIDKAALRPTDVLLEVGPPTGNM	70
Pan_troglodytes	-----GLMFNTGIGQHILKNPLIINSIIDKAALRPTDVLLEVGPPTGNM	70
Callithrix_jacchus	DPRRPVSTRSRERGRPLGMFNTGIGQHILKNPLIINSIIDKAALRPTDVLLEVGPPTGNM	112
Mus_musculus	-----GLMFNTGIGQHILKNPLIVNSIIDKAALRPTDVLLEVGPPTGNM	70
Rattus_norvegicus	-----GLMFNTGIGQHILKNPLIVNSIIDKAALRPTDVLLEVGPPTGNM	70
Bos_taurus	-----GLMFNTGIGQHILKNPLIVNSIIDKAALRPTDVLLEVGPPTGNM	70
Equus_caballus	-----GLMFNTGIGQHILKNPLIVNSIIDKAALRPTDVLLEVGPPTGNM	70
Heterocephalus_glaber	-----GLTFNTGIGQHILKNPLIVNSIIDKAALRPTDVLLEVGPPTGNM	78
Latimeria_chalumnae	-----	1
Xenopus_tropicalis	-----VLFNTVLGQHILKNPLIVNSIIDKAAIRPTDVLLEVGPPTGNM	63
Rhinatrema_bivittatum	-----VMFNTGIGQHILKNPLIVNSIIDKAALRPTDVLLEIGPPTGNM	63

.....70.....80.....90.....100.....110.....120

Pavo_muticus	TVKMLEKVKKVIACEIDPRLVGELQKRVOGTCLANKLEIKVGDVLKTDLPFFDVCVANLP	124
Pavo_cristatus	TVKMLEKVKKVIACEIDPRLVGELQKRVOGTCLANKLEIKVGDVLKTDLPFFDACVANLP	124
Gallus_gallus	TVKMLEKVKKVIACEIDPRLVGELQKRVOGTCLANKLEIKVGDVLKTDLPFFDACVANLP	124
Chelonia_mydas	TVKMLEKVKKVIACELDTRLVGELQKRVOGTCLANKLEIKVGDVLKTDLPFFDTCVANLP	124
Homo_sapiens	TVKLLEKAKKVVACELDPRLVAELHKRVOGTPVASKLQVLVGDVLKTDLPFFDTCVANLP	130
Pan_troglodytes	TVKLLEKAKKVVACELDPRLVAELHKRVOGTPVASKLQVLVGDVLKTDLPFFDTCVANLP	130
Callithrix_jacchus	TVKLLEKAKKVVACELDPRLVAELHKRVOGTPVASKLQVLVGDVLKTDLPFFDACVANLP	172
Mus_musculus	TVKLLEKAKKVVACELDPRLVAELHKRVOGTPLASKLQVLVGDVLKSDLPFFDACVANLP	130
Rattus_norvegicus	TVKLLEKAKKVVACELDPRLVAELHKRVOGTPLASKLQVLVGDVLKSDLPFFDACVANLP	130
Bos_taurus	TVKLLEKAKKVIACELDPRLVAELHKRVOGTPLASKLQVMVGDVLKADLPFFDACVANLP	130
Equus_caballus	TVKLLEKAKKVIACELDPRLVAELHKRVOGTPLAGKLQVMVGDVLKTDLPFFDACVANLP	130
Heterocephalus_glaber	TVKLLEKAKKVVACELDPRLVAELHKRVOGTPLASKLQVMVGDVLKTDLPFFDACVANLP	138
Latimeria_chalumnae	TVKLLEKVKKVVACELDTRLVAELQKRVOGTPVASKLQIMVGDVLKTDLPFFDICVANLP	61
Xenopus_tropicalis	TMKLLEKAKRVVACELDTRLVAELQKRVOGSAVASKLQVMVGDVLKTDLPFFDLVCVANLP	123
Rhinatrema_bivittatum	TVKMLEKAKKVIACELDTRLVAELQKRVOGTAMANKLQVMVGDVLKTDLPFFDACVANLP	123

.....130.....140.....150.....160.....170.....180

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*****:*****:*****:***
Pavo_muticus      YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGSKLYCRLSINTQLLARVDHLMK 184
Pavo_cristatus    YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGSKLYCRLSINTQLLARVDHLMK 184
Gallus_gallus     YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGSKLYCRLSINTQLLARVDHLMK 184
Chelonia_mydas    YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGNKLKLYCRLSINTQLLARVDHLMK 184
Homo_sapiens      YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 190
Pan_troglodytes   YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 190
Callithrix_jacchus YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 232
Mus_musculus      YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 190
Rattus_norvegicus YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 190
Bos_taurus        YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 190
Equus_caballus    YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 190
Heterocephalus_glaber YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 198
Latimeria_chalumnae YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 121
Xenopus_tropicalis YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 183
Rhinatrema_bivittatum YQISSPFVFKLLLRPFPRCAILMFQREFALRLVAKPGDKLYCRLSINTQLLARVDHLMK 183
.....190.....200.....210.....220.....230.....240

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**::*:*****:*****:***
Pavo_muticus      VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSSAV--- 241
Pavo_cristatus    VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSSAV--- 241
Gallus_gallus     VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSSAV--- 241
Chelonia_mydas    VGRNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSSAV--- 241
Homo_sapiens      VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 247
Pan_troglodytes   VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 247
Callithrix_jacchus VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 289
Mus_musculus      VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 247
Rattus_norvegicus VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 247
Bos_taurus        VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 247
Equus_caballus    VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 247
Heterocephalus_glaber VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRITFVRKNKTLAFAFKSSAV--- 255
Latimeria_chalumnae VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSSAV--- 178
Xenopus_tropicalis VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSTAV--- 240
Rhinatrema_bivittatum VGKNNFRPPPKVESSVVRIEPKNPPPPINFQEWDLVRIAFVRKNKTLAFAFKSHCEGVF 243
.....250.....260.....270.....280.....290.....300

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Pavo_muticus      ----EQLLDHNYRIHCSLHNVEIP-ENFKISEKIQTVLKETGYSEKRARSMDIDDFIR-- 294
Pavo_cristatus    ----EQLLDHNYRIHCSLHNVEIP-ENFKISEKIQTVLKETGYSEKRARSMDIDDFIR-- 294
Gallus_gallus     ----EQLLDHNYRIHCSLHNAEIP-ENFKISEKIQTVLKDTGYSEKRARSMDIDDFIR-- 294
Chelonia_mydas    ----QQLLDQNYRIHCSIHNIEIP-EDFKIAEKIQMVLKNTGFSEKRARSMDIDDFIRGT 296
Homo_sapiens      ----QQLLEKNYRIHCSVHNIIIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 300
Pan_troglodytes   ----QQLLEKNYRIHCSVHNIIIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 300
Callithrix_jacchus ----QQLLEKNYRIHCSVHNIIIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 342
Mus_musculus      ----QQLLEKNYRIHCSVQNTVIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 300
Rattus_norvegicus ----QQLLEKNYRIHCSVQNTVIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 300
Bos_taurus        ----QQLLEKNYRIHCSVHNIIIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 300
Equus_caballus    ----QQLLEKNYRIHCSVHNIIIP-EDFSIADKIQQILTSTGFSDKRARSMDIDDFIR-- 300
Heterocephalus_glaber ----QQLLEKNYRIHCSIHNIIIP-EDFSIADKVQQILTSTGFSDKRARSMDIDDFIR-- 308
Latimeria_chalumnae ----QQLLEKNYRIHCSVHNISIP-DNFSIAEKIEKILEEGGFSEKRARSMDIDDFMA-- 231
Xenopus_tropicalis ----QQLLEKNYRIHCSLHNISVP-ENFSIAEKIEGVLTETGFSSEKRARSMDIDDFMA-- 293
Rhinatrema_bivittatum PYPQQQLKLD--LVHRDPHNLLKRLLENLKHFEFIDILFLRKLEWDGLHHHPKTRKGNTR-- 299
.....310.....320.....330.....340.....350.....360

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Pavo_muticus	-----LLHGFN-----SEGIHFS--	307
Pavo_cristatus	-----LLHGFN-----SEGIHFS--	307
Gallus_gallus	-----LLHGFN-----SEGIHFS--	307
Chelonia_mydas	SQHYGFKETQYIQNQFTLLTLTGVSNHAVSSGSRLDIV	334
Homo_sapiens	-----LLHGFN-----AEGIHFS--	313
Pan_troglodytes	-----LLHGFN-----AEGIHFS--	313
Callithrix_jacchus	-----LLHGFN-----AEGIHFS--	355
Mus_musculus	-----LLHGFN-----AEGIHFS--	313
Rattus_norvegicus	-----LLHGFN-----AEGIHFS--	313
Bos_taurus	-----LLHGFN-----AEGIHFS--	313
Equus_caballus	-----LLHGFN-----AEGIHFS--	313
Heterocephalus_glaber	-----LLHGFN-----AEGIHFA--	321
Latimeria_chalumnae	-----LLHGFN-----AAGIHFS--	244
Xenopus_tropicalis	-----LLHGFN-----SQGIHFT--	306
Rhinatrema_bivittatum	-----KLQHCCKN-----RENIERYWL	316
370.....380.....390.....	