

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/KIAD08681p1 Feb 1 12:31:18 2022

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:***** *****.*****:****
Pavo_muticus      MAAAAAAAQDEL-----NQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 53
Pavo_cristatus    MAAAAAAAQDEL-----NQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 53
Gallus_gallus     MAAAAAAAQDEL-----NQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 53
Anas_platyrhynchos MAAAAAAAQDEL-----NQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 53
Chelonia_mydas    MAAAAASAAQDEL-----NQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 53
Homo_sapiens      -----MYHIDC-----RDQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 48
Pan_troglodytes   MAAAAASASQDE-----LNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 54
Macaca_mulatta    MAAAAASASQDE-----LNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 54
Callithrix_jacchus MTGNVRPSRLTPPWPRVDDQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 60
Bos_taurus        MAAAAASASQDE-----LNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 54
Equus_caballus    MAAAAASASQDE-----LNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 54
Canis_lupus_familiaris MAAAAASASQDE-----LNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 54
Mus_musculus      METGSD-----SDQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 48
Heterocephalus_glaber MIFGALSFSHTPF----TDQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 56
Latimeria_chalumnae MAAQDEL-----NQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 48
Rhinatrema_bivittatum MAAAAAAAQD-----ELNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 55
Xenopus_tropicalis MAASCSAAQDE-----LNQLERVFLRLGHAETDEQLONIISKFLPPVLLKLSSTQEGV 54
1.....10.....20.....30.....40.....50.....60

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*****:*****:*****:***:***:~:~
Pavo_muticus      RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVER 113
Pavo_cristatus    RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVER 113
Gallus_gallus     RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVER 113
Anas_platyrhynchos RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVER 113
Chelonia_mydas    RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 113
Homo_sapiens      RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 108
Pan_troglodytes   RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 114
Macaca_mulatta    RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 114
Callithrix_jacchus RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 120
Bos_taurus        RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 114
Equus_caballus    RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 114
Canis_lupus_familiaris RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 114
Mus_musculus      RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 108
Heterocephalus_glaber RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVEK 116
Latimeria_chalumnae RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPVNK 108
Rhinatrema_bivittatum RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLTVEK 115
Xenopus_tropicalis RKKVMELLVHLNKRIKSRPKIQLPVETLLVQYQDPAVSVFVTNFTIIYVKMGYPRLPLEK 114
.....70.....80.....90.....100.....110.....120

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*****:*****:*****:*****:~::~*~:*****:~:~
Pavo_muticus      QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Pavo_cristatus    QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Gallus_gallus     QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Anas_platyrhynchos QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Chelonia_mydas    QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 172
Homo_sapiens      QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 167
Pan_troglodytes   QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Macaca_mulatta    QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Callithrix_jacchus QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 179
Bos_taurus        QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Equus_caballus    QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Canis_lupus_familiaris QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 173
Mus_musculus      QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 167
Heterocephalus_glaber QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 175
Latimeria_chalumnae QCELAPTLLTAMEGKPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 161
Rhinatrema_bivittatum QCELAPTLLTAMEGRPPQDQSLMHLLIPTLFHMKYPAEPLKAAASPFNLAEKPKTVOLL 174
Xenopus_tropicalis QCELAQSLLTAMEGKPPQDQSLIHLLIPTLYHMKYHTETSKSTS-LFNLAEKPKTVHLL 173
.....130.....140.....150.....160.....170.....180

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	:**:****.*.:*.*:***	*****:*****	
Pavo_muticus	LDFMLDVLLMPYGYVLNESQSRO-NMPSGQGSSSSTIS	GGP---	GIPOPPPGMSFYAAKR 228
Pavo_cristatus	LDFMLDVLLMPYGYVLNESQSRO-NMPSGQGSSSSTT	GGP---	GIPOPPPGMSFYAAKR 228
Gallus_gallus	LDFMLDVLLMPYGYVLNESQSRO-NMPSGQGSSSSTM	GGP---	GIPOPPPGMSFYAAKR 228
Anas_platyrhynchos	LDFMLDVLLMPYGYVLNESQSRO-NVPTAQGSSSSTV	GGP---	GIPOPPPGMSFYAAKR 228
Chelonia_mydas	LDFMLDVLLMPYGYVLNESQSRO-NVPSAQGSSSASS	AGSS---	GIPOPPPGMSFYAAKR 228
Homo_sapiens	LDFMLDVLLMPYGYVLNESQSRO-NSSSAQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 222
Pan_troglodytes	LDFMLDVLLMPYGYVLNESQSRO-NSSSAQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 228
Macaca_mulatta	LDFMLDVLLMPYGYVLNESQSRO-NSSSAQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 228
Callithrix_jacchus	LDFMLDVLLMPYGYVLNESQSRO-NSSSAQGSSSNSG	GVS---	GIPOPPPGMSFYAAKR 234
Bos_taurus	LDFMLDVLLMPYGYVLNESQSRO-NSSSAQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 228
Equus_caballus	LDFMLDVLLMPYGYVLNESQSRO-NSSSAQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 228
Canis_lupus_familiaris	LDFMLDVLLMPYGYVLNESQSRO-NSSSGQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 228
Mus_musculus	LDFMLDVLLMPYGYVLNESQSRO-NSSSSQGSSSNSG	GGG---	GIPOPPPGMSFYAAKR 223
Heterocephalus_glaber	LDFMLDVLLMPYGYVLNESQSRO-SSSSAQGSSSNSG	GSS---	GIPOPPPGMSFYAAKR 230
Latimeria_chalumnae	LDFMLDVLLMPYGFVLNEPQNRP-NPPSPGEGSTANGGS	GGGVGV	GIPOPPPGMSFYAAKR 220
Rhinatrema_bivittatum	LDFMLDVLLMPYGFVLNEPPSR--SSSAQDSSASSTGST	---	GIPOPPPGMSFYAAKR 229
Xenopus_tropicalis	LDFMLDVLLMPYGFVLNEPPNRQ-STPSQGGSASPSTGSGV	---	GIPOPPPGMSFYAAKR 229
190.....200.....210.....220.....230.....240		

	:..***.* *****:*.:*****.* ***:*****:****:*.:	
Pavo_muticus	VIGDSPWTPELLEQCKLGIVKFIEAEQVPELEAVVHLVVASSDTRHSVATAADLELKSQ	288
Pavo_cristatus	VIGDSPWTPELLEQCKLGIVKFIEAEQVPELEAVVHLVVASSDTRHSVATAADLELKSQ	288
Gallus_gallus	VIGDSPWTPELLEQCKLGIVKFIEAEQVPELEAVVHLVVASSDTRHSVATAADLELKSQ	288
Anas_platyrhynchos	VIGDSPWTPELLEQCKLGIVKFIEAEQVPELEAVVHLVVASSDTRHSVATAADLELKSQ	288
Chelonia_mydas	VIGDSPWTPEQLEQCKLGIVKFIEAEQVPELEAVIHLVIASSDTRHSVATAADLELKSQ	288
Homo_sapiens	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	282
Pan_troglodytes	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	288
Macaca_mulatta	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	288
Callithrix_jacchus	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVVASSDTRHSVATAADLELKSQ	294
Bos_taurus	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	288
Equus_caballus	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	288
Canis_lupus_familiaris	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	288
Mus_musculus	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	283
Heterocephalus_glaber	VIGDNPWTPEQLEQCKLGIVKFIEAEQVPELEAVLHLVIASSDTRHSVATAADLELKSQ	290
Latimeria_chalumnae	VIGETPWTPEQLEQCKLGIKFIEAEQVPELETVIHLVVASSDTRHSVATSADLELKSQ	280
Rhinatrema_bivittatum	VVGDSPWTAEQLEQCKLGIVKFIEAEQVPELEAVTHLVIASSDTRHSVATAADLELRSQ	289
Xenopus_tropicalis	VVGDNPTAEQLEQCKLGIVKFIEAEQVPELEVVIHLVIASSDTRHSVATAADLELKSQ	289
250.....260.....270.....280.....290.....300	

	*:****.**:.:*****:***:*.:*****:*.:***** **	
Pavo_muticus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGSLVKPEMKRESVSTRVKLKIVPHLLRSQAA	348
Pavo_cristatus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGSLVKPEMKRESVSTRVKLKIVPHLLRSQAA	348
Gallus_gallus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGSLVKPEMKRESVSTRVKLKIVPHLLRSQAA	348
Anas_platyrhynchos	SLIDWNNPAIINKMYKVYLGDIPLKTKEGSLVKPEMKRESVSTRVKLKIVPHLLRSQAA	348
Chelonia_mydas	SLIDWNNPIIVNKMYKVYLGDIPLKTKEGVVLKPELKRDPVSTRVKLKIVPHLLRSQAA	348
Homo_sapiens	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	342
Pan_troglodytes	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	348
Macaca_mulatta	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	348
Callithrix_jacchus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	354
Bos_taurus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	348
Equus_caballus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	348
Canis_lupus_familiaris	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	348
Mus_musculus	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	343
Heterocephalus_glaber	SLIDWNNPAIINKMYKVYLGDIPLKTKEGAVLKPELKRDPVSTRVKLKIVPHLLRSQAA	350
Latimeria_chalumnae	SIIDWNNPAIINKMFKVYLGDIPLKTKEGTALKPELKREPVSTRVKMKIIPHLLRSQAA	340
Rhinatrema_bivittatum	SLIDWNNPVIVNKLYKVYLGDIPLKTKEGSLMKPELKRDPVSTRVKLKIVPHLLRSQAA	349
Xenopus_tropicalis	SLIDWNNPFIISKMYKVYLGDIPLKTKEGSLLKPELKRDPVSTRVKLKIVPHLLRSRLAA	349
310.....320.....330.....340.....350.....360	

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* **::***** **::: *:***** *: ***** *****
Pavo_muticus      ETFPANIQVVDGLFGANTNAKLRSLSLQFVHHICITCPESKIKPLGPMLLNGLTKLINE 408
Pavo_cristatus    ETFPANIQVVDGLFGANTNAKLRSLSLQFVHHICITCPESKIKPLGPMLLNGLTKLINE 408
Gallus_gallus     ETFPANIQVVDGLFGANTNAKLRSLSLQFVHHICITCPESKIKPLGPMLLNGLTKLINE 408
Anas_platyrhynchos ETFPANIQVVDGLFGANTNAKLRSLSLQFVHHICITCPESKIKPLGPMLLNGLTKLINE 408
Chelonia_mydas    ETFPANIQVVDGLFGANTNTKLRTLSLQFVHHICITCPESKIKPLGPMLLNGLTKLINE 408
Homo_sapiens      ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 402
Pan_troglodytes   ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 408
Macaca_mulatta    ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 408
Callithrix_jacchus ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 414
Bos_taurus        ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 408
Equus_caballus    ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 408
Canis_lupus_familiaris ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 408
Mus_musculus      ETFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 403
Heterocephalus_glaber EMFPANIQVVDGLFGTNTNSKLRTLSLQFVHHICITCPEIKIKPLGPMLLNGLTKLINE 410
Latimeria_chalumnae ETFPANIQVVDGLFGANTNAKLKMLSMQFVHHICITCSDTKIKPLGPMLLNGLIKLINE 400
Rhinatrema_bivittatum ELFPSNIQVVDGLFGGNTNAKLRLALQFVHHICITVCPDSKIKPLGPMLLNGLTKLINE 409
Xenopus_tropicalis ELFPANVQVVDGLFGGNTNAKLRLALQFVHHICITCPDAKIKPLGPMLLNGLTKLINE 409
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      YKEDS-KLLSMAYS AVGKLS SRMPQLFTKDIALVQOQFEALCKEDADTRLAIQ EALSMMV 467
Pavo_cristatus    YKEDS-KLLSMAYS AVGKLS SRMPQLFTKDIALVQOQFEALCKEDADTRLAIQ EALSMMV 467
Gallus_gallus     YKEDS-KLLSMAYS AVGKLS SRMPQLFTKDIALVQOQFEALCKEDADTRLAIQ EALSMMV 467
Anas_platyrhynchos YKEDS-KLLSMAYS AVGKLS SRMPQLFTKDIALVQOQFEALCKEDADTRLAIQ EALSMMV 467
Chelonia_mydas    YKEDP-KLLSMAYS AVGKLS SRMPQLFTKDIALVQOQFEALCKEEDTRLAIQ EALSMMV 467
Homo_sapiens      YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 461
Pan_troglodytes   YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 467
Macaca_mulatta    YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 467
Callithrix_jacchus YKEDP-KLLSMAYS AIGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 473
Bos_taurus        YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 467
Equus_caballus    YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 467
Canis_lupus_familiaris YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 467
Mus_musculus      YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 462
Heterocephalus_glaber YKEDP-KLLSMAYS AVGKLS SRMPHLFTKDIALVQQLFEALCKEEPETRLAIQ EALSMMV 469
Latimeria_chalumnae YSGDPGPGLLAMAYS GVGKLS SRMPQLFTKDIALVQOQFEAMCMEDPDTRLISIQ EALSMMV 460
Rhinatrema_bivittatum YKEDS-KLLSMAYS AVGKLS SRMPQLFTKDIALVQOQFEAMCKEDPDTRLISIQ EALSMMV 468
Xenopus_tropicalis YKEDP-KLMSLAYSAVGKLS GRMPQLFTKDIALVQOQFEAMRKEDTDVRLISIQ EALSMMV 468
.....430.....440.....450.....460.....470.....480

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*** ****. *****.*** **.*.*****.....*:::*****:*** *
Pavo_muticus      GAYSNLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPPDHIPSRYL LLLAAGDPR 527
Pavo_cristatus    GAYSNLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPPDHIPSRYL LLLAAGDPR 527
Gallus_gallus     GAYSNLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPPDHIPSRYL LLLAAGDPR 527
Anas_platyrhynchos GAYSNLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPPDHIPSRYL LLLAAGDPR 527
Chelonia_mydas    GAYSSLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 527
Homo_sapiens      GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 521
Pan_troglodytes   GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 527
Macaca_mulatta    GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 527
Callithrix_jacchus GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 533
Bos_taurus        GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 527
Equus_caballus    GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 527
Canis_lupus_familiaris GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 527
Mus_musculus      GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 522
Heterocephalus_glaber GAYSTLEGAQRTLMEALVASYLKPEVQVROVAVKFASTVFPSDHIPSRYL LLLAAGDPR 529
Latimeria_chalumnae GAYSSLEGASLNLMEALVASYLEKPEAQARQVAVKFAGTVFSSDHVPSRYL LLLAAGDPR 520
Rhinatrema_bivittatum GAYRHLEGAQLKLMEALVASYLKPEVQVROVAVKFVSTVFSPDHITSRYL LLLAAGDLR 528
Xenopus_tropicalis GAYTNLEGAQLTLMEALVGSYLKPEVQVROVAVKFASNVFAPDHIPSRYL LLLSAGDPR 528
.....490.....500.....510.....520.....530.....540

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****.**** ** .. . :... :*:** ** *: :*** *:*:*:*:*:...: ***
EEVHGGAQRVLRITFPGKNEKESGKQMPSSFPEMVHYIQEKASHRMKTPAKYMTGTAALPF
EEVHGGAQRVLRITFPGKNEKESGKQMPSSFPEMVHYIQEKASHRMKTPAKYMTGTAALPF
EEVHGGAQRVLRITFPGKNEKESGKQMPSSFPEMVHYIQEKASHRMKTPAKYMTGTAALPF
EEVHGGAQRVLRITFPGKNEKESGKQMPSSFPEMVHYIQDKASHRMKTPAKYMTGTAALPF
EEVHGGAQRVLRITFPGKNEKESAGKQMPSSFPEMVHYIQDKASHRMKTPAKYMTGTAALPF
EEVHGGAQRVLRITCLPGRNRKESTSEQMPSSFPEMVYIIQEKASHRMKTPVKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNRKESTSEQMPSSFPEMVYIIQEKASHRMKTPVKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNRKESTSEQMPSSFPEMVYIIQEKASHRMKTPVKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNRKESTSEQMPSSFPEMVYIIQEKASHRMKTPVKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNRKESASKQMPSSFPEMVYIIQEKASHRMKTPAKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNRKESASKQMPSSFPEMVYIIQEKASHRMKTPAKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNKESASKQMPSSFPEMVYIIQEKASHRMKTPAKYMTGTTVLPF
EEVHGGAQRVLRITCLPGRNKESASKQMPSSFPEMVYIIQEKASHRMKTPVKYMTGTTVLPF
EEVHGGAQRVLRITCLPGKNKNEGASKQMPSSFPEMVYIIQEKASHRMKTPVKYMTGTTVLPF
EEVHSEAGRILRAVPGHTEKESSTKRRMPSFPDMVNYIQEKASQRIKTPAKYVTGNSTLPE
EEVHGGAQRALRALPGNNKEKSAARRLPAFDDMVQYVQEKASQRIKSPAKYVTGNALPE
EEVHGGAQRALRSYASSTDKEAPSPKLPSPFPMVSVVLEKASSRMKTPVKFVTATSELPF
.....550.....560.....570.....580.....590.....600

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*** : **: :***:*****.:*: :*****:***: :*** *: : . ***
NPAMFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRNLM SGNHISF SSTSSS 647
NPAMFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRNLM SGNHISF SSTSSS 647
NPATFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRNLM SGNHISF SSTSSS 647
NPATFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRNLM SGNHISF SSTSSS 647
NPATFGEIVLYLRMC LAHSAGVVP ASQSLADM QDHAPAIGRYIRNLL SGNFIS SSTSSS 647
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSGQMA--PSSS- 638
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSGQTA--PSSS- 644
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSGQTA--PSSS- 645
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSGQVA--PSSS- 651
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGHYIRTLM SSGQAT--PSSS- 645
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSGQAT--SSSSS 645
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSGQVT--SSSSS 645
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRALM SSSQAT--ASSS- 639
NPAAFGEIVLYLRMC LAHSAGVVP TSQSLADM QDHAPAIGRYIRTLM SSSQAT--ASSS- 647
NPAAYGEIIMYLRLC LAHSAGVAP TSQSLADM QDHAPAIGRYIRNLM ADSLIS--SSSSS 638
NPAAFGEIVLYLRMC LAHSAGAVP TSQNLADM QDHAPAIGRYIRNLM SSGFIS----SS 643
NPAAFLEIMLYLRMC LAHSAGVTP TSQSIADM QDQAPVLGRYIRELM STDLTIV--SDESS 646
.....610.....620.....630.....640.....650.....660

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[illegible]

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/KIAD06681p1 Feb 1 12:31:18 2022

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***** :*:***:** *:: :*: *:::*** ***:*****:****:
Pavo_muticus      NKEEMRELAALFYSVVLSTMSGNELRASVEOLIKMTKDNHSPEVOHGSLLALGFTIGRYL 766
Pavo_cristatus    NKEEMRELAALFYSVVLSTMSGNELRASVEOLIKMTKDNHSPEVOHGSLLALGFTIGRYL 766
Gallus_gallus     NKEEMRELAALFYSVVLSTMSGNELRASVEOLIKMTKDNHSPEVOHGSLLALGFTVGRYL 766
Anas_platyrhynchos NKEEMRELAALFYSVVLSTMSGNELRASVEOLIKMTKDNHSPEVOHGSLLALGFTVGRYL 766
Chelonia_mydas    NKEEMRELAALLYSVVLSTMSGNELKSVQOLIKTKDNHNPEIQHGSLLALGFTVGRYL 767
Homo_sapiens      SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 758
Pan_troglodytes   SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 764
Macaca_mulatta    SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 765
Callithrix_jacchus SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 771
Bos_taurus        SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 765
Equus_caballus    SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 765
Canis_lupus_familiaris SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTVGRYL 765
Mus_musculus      SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEVOHGSLLALGFTVGRYL 759
Heterocephalus_glaber SKEEMRELAALFYSVVSVTVSGNELKSMIEOLIKTTKDNHSPEIQHGSLLALGFTIGRYL 767
Latimeria_chalumnae NKEEMRELAALFYAVVSVTVSGNELKSAIQNLVKAMKDDKSPETQHALLALGYMVGGRYM 758
Rhinatrema_bivittatum SKEEMRELAALFYAVVSVTVSGNELKSAIQSLIKTTKENHNPEIQHGSLLALGYIVGRYL 763
Xenopus_tropicalis NKEEMRELAALFYAVVSVTVSGNELKPKLENLIKIAKDNHNPEAQHALLALGYLIGRYL 766
.....730.....740.....750.....760.....770.....780

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* : :*:*** ***:*****:
Pavo_muticus      AKGKIRAMELHDIEQPNNTAVMPEQEKLIKSTTETIGSFLLDSTSPFLVVAACALGEIGRN 826
Pavo_cristatus    AKGKIRAMELHDIEQPNNTAVMPEQEKLIKSTTETIGSFLLDSTSPFLVVAACALGEIGRN 826
Gallus_gallus     AKGKIRAMELHDIEQPNNTAVMPEQEKLIKSTTETIGSFLLDSTSPFLVVAACALGEIGRN 826
Anas_platyrhynchos AKRKRAMELHDIEQPNNTAVMPEQEKLIKSTTETIGSFLLDSTSPFLVVAACALGEIGRN 826
Chelonia_mydas    AKRKRAMELHDIEQPNNTAVMPEQEKLIKSTTETIGSFLLDSTSPFLVVAACALGEIGRN 827
Homo_sapiens      AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 817
Pan_troglodytes   AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 823
Macaca_mulatta    AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 824
Callithrix_jacchus AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 828
Bos_taurus        AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 824
Equus_caballus    AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 824
Canis_lupus_familiaris AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 824
Mus_musculus      AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 818
Heterocephalus_glaber AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 826
Latimeria_chalumnae AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 818
Rhinatrema_bivittatum AKKKMRMSEQQDL-ERNADTLDPQEEELIQSATETIGSFLLDSTSPFLVVAACALGEIGRN 823
Xenopus_tropicalis EKFRHNPVELHMR---GPTSLFHEHDKIIQDCAETIGLFLDNTSPQLAIAAIALGEIGRN 823
.....790.....800.....810.....820.....830.....840

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* **:* :*.*:* *** ** :***.***** ***.***** :*** ** ** *:
Pavo_muticus      GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 886
Pavo_cristatus    GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 886
Gallus_gallus     GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 886
Anas_platyrhynchos GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 886
Chelonia_mydas    GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 887
Homo_sapiens      GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 877
Pan_troglodytes   GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 883
Macaca_mulatta    GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 884
Callithrix_jacchus GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 888
Bos_taurus        GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 884
Equus_caballus    GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 884
Canis_lupus_familiaris GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 884
Mus_musculus      GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 878
Heterocephalus_glaber GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 886
Latimeria_chalumnae GVLPIPNEGTFGFTKLRLVEILLAKIPSGKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 878
Rhinatrema_bivittatum GPLPIPSEGTGFTKLQLVESLLARIPSSKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 883
Xenopus_tropicalis GVLPIPNEGTFGFTKLRLVEILLAKIPSGKETNKMKERAIQTLGYFPVGDGDFPHQKLLQ 883
.....850.....860.....870.....880.....890.....900

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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***:*****:*****:*****.* **.* :*: * :*:*: . *****.*:*
Pavo_muticus      GLMDSVEAKQIELQFTVGEAITSAAVGTSSVAARDAWTVTEEEYIPAPDLKVNDDVVPWVL 946
Pavo_cristatus    GLMDSVEAKQIELQFTVGEAITSAAVGTSSVAARDAWTVTEEEYIPAPDLKVNDDVVPWVL 946
Gallus_gallus     GLMDSVEAKQIELQFTVGEAITSAAVGTSSVAARDAWTVTEEEYIPASDLKVNDDVVPWVL 946
Anas_platyrhynchos GLMDSVEAKQIELQFTVGEAITSAAVGTSSVAARDAWTVTEEEYIPPPDLKVNDDVVPWVL 946
Chelonia_mydas    GLMDSVEAKQIELQFTVGEAITSAAIGTSSVAARDAWMVTEEEYTPPADVKVNDDVVPWVL 947
Homo_sapiens      GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWQMTEEEYTPPAGAKVNDDVVPWVL 937
Pan_troglodytes   GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWQVTEEEYTPPAGAKVNDDVVPWVL 943
Macaca_mulatta    GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 944
Callithrix_jacchus GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 948
Bos_taurus        GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 944
Equus_caballus    GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 944
Canis_lupus_familiaris GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 944
Mus_musculus      GLMDSVEAKQIELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 938
Heterocephalus_glaber GLMDSVEAKQVELQFTIGEAITSAAGTSSVAARDAWLVTETEEYTPPAGAKVNDDVVPWVL 946
Latimeria_chalumnae GLMDSVEAKQIELQFTIGEAITSAAGTSSVTAREAWTVAEEYESTLKDVKVNDDVVPWIL 938
Rhinatrema_bivittatum GLMDSVEAKQIELQFTVGEAITSAAIGTSSAAARDIWMVAEEYSPPADIKVNDDVVPWVL 943
Xenopus_tropicalis GLMESVEAKQIELQFTVGEAITSAAVGTSSAAARDIWMVITEDEHLPP-HAKVNDDVSVWL 942
.....910.....920.....930.....940.....950.....960

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* :*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:*:
Pavo_muticus      DLILNKHIIISPNPHVROAACIWLLSMVKKLSTHKAIKSHLKDIOQSAFVSILSDSDELSQD 1006
Pavo_cristatus    DLILNKHIIISPNPHVROAACIWLLSMVKKLSTHKAIKSHLKDIOQSAFVSILSDSDELSQD 1006
Gallus_gallus     DLILNKHIIISPNPHVROAACIWLLSMVKKLSTHKAIKSHLKDIOQSAFVSILSDSDELSQD 1006
Anas_platyrhynchos DLILNKHIIISPNPHVROAACIWLLSMVKKLSTHKAIKSHLKDIOQSAFVSILSDSDELSQD 1006
Chelonia_mydas    DLVLNKHIVSPNPHVROAACIWLLSLVKKLSTHKEIKSHLKEIQSAFVSVLSDNDELSQD 1007
Homo_sapiens      DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHKEVKSHLKEIQSAFVSVLSENDELSQD 997
Pan_troglodytes   DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHKEVKSHLKEIQSAFVSVLSENDELSQD 1003
Macaca_mulatta    DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHKEVKSHLKEIQSAFVSVLSENDELSQD 1004
Callithrix_jacchus DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHKEVKSHLKEIQSAFVSVLSENDELSQD 1008
Bos_taurus        DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHSEVKSHLKEIQSAFVSVLSENDELSQD 1004
Equus_caballus    DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHSEVKSHLKEIQSAFVSVLSENDELSQD 1004
Canis_lupus_familiaris DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHKEVKSHLKEIQSAFVSILSENDELSQD 1004
Mus_musculus      DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHREVKSHLKEIQSAFVSVLSENDELSQD 998
Heterocephalus_glaber DVILNKHIIISPNPHVROAACIWLLSLVRKLSTHKEVKSHLKEIQSAFVSVLSENDELSQD 1006
Latimeria_chalumnae DIILKKHIIISPKPHVROASCIWLLSLVKKLSTHKEIKSHLKDIOQIAFTSVLSENDELSQD 998
Rhinatrema_bivittatum DVILNKQIVSPNPHIROAACIWLLSLVKKLSTHKEIKSHLKEIQSAFVSILSENDELTD 1003
Xenopus_tropicalis DQILNKRVSVNPHIROAACIWLLSLVKKLSDHQEIRSKLKEIQSAFISVLSDNDELSQD 1002
.....970.....980.....990.....1000.....1010.....1020

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*****:*****:*****:*****.* **.*:***** **.*:*.***. *..*****.*
Pavo_muticus      VASKGLGLIYELGSEQDQQLVTTTLVDTLMTGKRAKHEMTGDTVVFGG-LSKTPDGQGL 1065
Pavo_cristatus    VASKGLGLIYELGSEQDQQLVTTTLVDTLMTGKRAKHEMTGDTVVFGG-LSKTPDGQGL 1065
Gallus_gallus     VASKGLGLIYELGSEQDQQLVTTTLVDTLMTGKRAKHEMTGETVVFGG-LSKTPDGQGL 1065
Anas_platyrhynchos VASKGLGLIYELGSEQDQQLVTTTLVDTLMTGKRAKHEMTGETVVFGG-LSKTPDGQGL 1065
Chelonia_mydas    VASKGLGLVYELGSEQDQQLVTTTLVDTLMTGKRVKHEVTGETVVFGA-LGKTPDGQGL 1066
Homo_sapiens      VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRVKHEVSGETVVFGGALGKTPDGQGL 1057
Pan_troglodytes   VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRVKHEVSGETVVFGGALGKTPDGQGL 1063
Macaca_mulatta    VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRVKHEVSGETVVFGGALGKTPDGQGL 1064
Callithrix_jacchus VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRVKHEVSGETVVFGGALGKTPDGQGL 1068
Bos_taurus        VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRAKHEVSGETVVFGGSLGKTPDGQGL 1064
Equus_caballus    VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRAKHEVSGETVVFGGSLGKTPDGQGL 1064
Canis_lupus_familiaris VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRAKHEVSGETVVFGGSLGKTPDGQGL 1064
Mus_musculus      VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRVKHEVSGETVVFGGSLGKTPDGQGL 1058
Heterocephalus_glaber VASKGLGLVYELGNEQDQQLVSTLVETLMTGKRAKHEVSGDTVVFGGSLGKTPDGQGL 1066
Latimeria_chalumnae VASKGLGLVYELGSEQDQQLVSTLVETLMTGKRIKHSISGDTVEVFGSGSLGKTPDGQGL 1058
Rhinatrema_bivittatum VASKGLGLVYELGSEQDQQLVSTLVETLMTGKRIKHEVSGETEVEFGSLGKTPDGQGL 1063
Xenopus_tropicalis VASKGLGLVYELGSDQDQQLVSTLVETLMTGKRAKHEVSGETEVEFGSLGKTPDGQGL 1062
.....1030.....1040.....1050.....1060.....1070.....1080

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*****:***:*.****:*****.*****.*****:*****
Pavo_muticus          STYKELCSLASDLNQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIAAKAGEQLAPFLPQL 1125
Pavo_cristatus        STYKELCSLASDLNQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIAAKAGEQLAPFLPQL 1125
Gallus_gallus         STYKELCSLASDLNQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIAAKAGEQLAPFLPQL 1125
Anas_platyrhynchos    STYKELCSLASDLNQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIAAKAGEQLAPFLPQL 1125
Chelonia_mydas        STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATKAGEQLAPFLPQL 1126
Homo_sapiens          STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1117
Pan_troglodytes       STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1123
Macaca_mulatta        STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1124
Callithrix_jacchus    STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1128
Bos_taurus            STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1124
Equus_caballus        STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1124
Canis_lupus_familiaris STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1124
Mus_musculus          STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1118
Heterocephalus_glaber STYKELCSLASDLSQPDLVYKFMNLANHHAMWNSRKGAAGFNFVIATRAGEQLAPFLPQL 1126
Latimeria_chalumnae   STYKELCALASELNQPDLIYKFMNLANHHAMWNSRKGAAGFNFVIAAKAGEQLAPFLPQL 1118
Rhinatrema_bivittatum STYKELCALASDLSQPDLIYKFMNLANHHAMWNSRKGAAGFNFVIATKAGEQLAPFLPQL 1123
Xenopus_tropicalis    STYKELCALASDLSQPDLIYKFMNLANHHAMWNSRKGAAGFNFVIATKAGEQLAPFLPQL 1122
.....1090.....1100.....1110.....1120.....1130.....1140

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:***** *****:*. * ** *: ***: * : ****:***:*****
Pavo_muticus          LPRLRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYMKEILDDLISNLTSSLWRIRESSC 1185
Pavo_cristatus        LPRLRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYMKEILDDLISNLTSSLWRIRESSC 1185
Gallus_gallus         LPRLRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYMKEILDDLISNLTSSLWRIRESSC 1185
Anas_platyrhynchos    LPRLRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYMKEILEDLISNLTSSLWRIRESSC 1185
Chelonia_mydas        VPRLYRYQFDPNMGIRQAMTSIWNALVTDKSAVDKYMKEILDDLINNLTSSNMWRVRESSC 1186
Homo_sapiens          VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYLKEILODLVKNLTSSNMWRVRESSC 1177
Pan_troglodytes       VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYLKEILODLVKNLTSSNMWRVRESSC 1183
Macaca_mulatta        VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYLKEILODLVKNLTSSNMWRVRESSC 1184
Callithrix_jacchus    VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYLKEILODLVKNLTSSNMWRVRESSC 1188
Bos_taurus            VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYLKEILODLVKNLTSSNMWRVRESSC 1184
Equus_caballus        VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSTVDKYLKEILODLVKNLTSSNMWRVRESSC 1184
Canis_lupus_familiaris VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSTVDKYLKEILODLVKNLTSSNMWRVRESSC 1184
Mus_musculus          VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSMVDKYLKEILODLIKNLTSSNMWRVRESSC 1178
Heterocephalus_glaber VPRLYRYQFDPNLGIRQAMTSIWNALVTDKSTVDKYLKEILODLIKNLTSSNMWRVRESSC 1186
Latimeria_chalumnae   VPRLYRYQFDPNSGIRQAMTSIWNALVTDKAAVDTYLKEILOELLGNLTSSNMWRVRESSC 1178
Rhinatrema_bivittatum LPRLRYQFDPNIGIRQAMTSIWNAMVKDKTVVDKYMKEILODLIINLTSSNVWRIRESSC 1183
Xenopus_tropicalis    IPRLRYQFDPNTGIRQAMTSIWNALVTNKNMVDKYLVEILODLINNLTSSNLWRVRESSC 1182
.....1150.....1160.....1170.....1180.....1190.....1200

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**::***:*** ** :***:***: * ****:*****: **::*****:***:.. :
Pavo_muticus          LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPSK 1245
Pavo_cristatus        LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPSK 1245
Gallus_gallus         LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPSK 1245
Anas_platyrhynchos    LALNDLLRGRPLDDIIDKLPEIWEILFRVDDIKESVRKAAELALKTLISKVCVKMCDPSK 1245
Chelonia_mydas        LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPSK 1246
Homo_sapiens          LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1237
Pan_troglodytes       LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1243
Macaca_mulatta        LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1244
Callithrix_jacchus    LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1248
Bos_taurus            LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1244
Equus_caballus        LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1244
Canis_lupus_familiaris LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1244
Mus_musculus          LALNDLLRGRPLDDVIDKLPEMWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPAK 1238
Heterocephalus_glaber LALNDLLRGRPLDDIIDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCDPTK 1246
Latimeria_chalumnae   LAVNDLIRGRQLDITDKLPELLETFLVRVDDIKESVRKAADQALNTLSKVCVRLCDSSN 1238
Rhinatrema_bivittatum LALNDLLRGRQLDDIIDKIPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVRMCEPSK 1243
Xenopus_tropicalis    LALNDLLRGRQLDDVVDKLPEIWEVLFVRVDDIKESVRKAAELALKTLISKVCVKMCEPCK 1242
.....1210.....1220.....1230.....1240.....1250.....1260

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/KIAA0868Tpe Feb 1 12:31:18 2022

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**::*:*:..*****:~*:~*:~*:~*****:~*****:~*****:
GAAGQKTIIVLLPCLLDKGIVSTVAEVRSLSENTLVKISKSAGSMLKPHAPKLIPALLEA 1305
GAAGQKTIIVLLPCLLDKGIVSTVAEVRSLSENTLVKISKSAGSMLKPHAPKLIPALLEA 1305
GAAGQKTIIVLLPCLLDKGIIISTVAEVRSLSENTLVKISKSAGSMLKPHAPKLIPALLEA 1305
GAAGQKTVAVLLPCLLDKGIVSTVAEVRSLSENTLVKISKSAGSMLKPHAPKLIPALLES 1305
GAAGQRTIAVLLPCLLDKGMMSTVTEVRALSINTLVKISKSAGVMLKPHAPKLIPALLES 1306
GAAGQRTIAALLPCLLDKGMMSTVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1297
GAAGQRTIAALLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1303
GAAGQRTIAALLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1304
GAAGQRTIAALLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1308
GAAGQRTIAVLLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1304
GAAGQRTIAVLLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1304
GAAGQRTIAVLLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1304
GAAGQRTIAVLLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1298
GAAGQRTIAVLLPCLLDKGMMSPVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1306
GAAGQKTVSVLLPCLLDKGIMSTVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1298
GASGQRTIAVLLPCLLDKGIMSTVTEVRALSINTLVKISKSAGAMLKPHAPKLIPALLES 1303
GASGQRTIAVLLPCLLDKGMMSTVTEVRALSINTLVKISKSAGEMLKPHETSKLIPALLES 1302
.....1270.....1280.....1290.....1300.....1310.....1320

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**.*:**.:***** **:*:**.*.*.******.******.*:*.***.*.:*****
LSALEPQVLNYLSLCATDQEKTAMDSARLSAVKSSPMMETINMSLOYLDVSVLSELVPRL    1365
LSALEPQVLNYLSLCATDQEKTAMDSARLSAVKSSPMMETINMSLOYLDVSVLSELVPRL    1365
LSALEPQVLNYLSLCATDQEKTAMDSARLSAVKSSPMMETINMSLOYLDVSVLGELVPRL    1365
LSVLEPQVLNYLSLCATDQEKTAMDSARLSAVKSSPMMETINMSLOYLDVSVILGELVPRL    1365
LSVLEPQVLNYLSLRATDQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1366
LSVLEPQVLNYLSLRATEQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1357
LSVLEPQVLNYLSLRATEQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLSELVPRL    1363
LSVLEPQVLNYLSLRATEQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1364
LSVLEPQVLNYLSLRATEQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1368
LSVLEPQVLNYLSLRATDQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1364
LSVLEPQVLNYLSLRATDQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1364
LSVLEPQVLNYLSLRATDQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1364
LSVLEPQVLNYLSLRATEQEKDVMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1358
LSVLEPQVLNYLSLRATDQEKAAMD SARLSAAKSSPMMETINMCLOYLDVSVLGELVPRL    1366
LSVLEPQLNLYSLRATEQEkatMDNARLSAAKSSPMMETINMCLQHLDVSVLGELVPRL    1358
LSVLEPQVFNYLSLRATEQEKAAMDNARLSAAKSSPMMETINMCLQHLDVSVLGOLVPRL    1363
LSVLEPQVLNYLSLRATDQEKAAMD SARLSAAKSSPMMETINMCIOHLDVSPVLGELVPRL    1362
.....1330.....1340.....1350.....1360.....1370.....1380

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[illegible]

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/KIAD08681p1 Feb 1 12:31:18 2022

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*****::...* :*:~*:~* ~*:~*:~* *: ~*: ~*:~*:~*:~*:~*:~* ~*:~*
Pavo_muticus      MGHLVRTSRDSSTEKLLHKLSSWYMEKEEPPVYRTGCALTVMHMGGRYSPDVVKNHAKQVLP 1485
Pavo_cristatus    MGHLVRTSRDSSTEKLLHKLSSWYMEKEEPPVYRTGCALTVMHMGGRYSPDVVKNHAKQVLP 1485
Gallus_gallus     MGHLVRTSRDSSTEKLLHKLSSWYMEKEEPPVYRTGCALTVMHMGGRYSPDVVKNHAKQVLP 1485
Anas_platyrhynchos MGHLVRTSRDSSTEKLLHKLSSWYMEKEEPPVYRTGCALTVMHMGGRYSPDVVKNHAKQVLP 1485
Chelonia_mydas    MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYRIGCALTVHAIGRYS PDVLKNHAKQVLP 1486
Homo_sapiens      MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1477
Pan_troglodytes   MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1483
Macaca_mulatta    MGHLVRTSRDSSTEKLLQKLSGWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1484
Callithrix_jacchus MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1488
Bos_taurus        MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1484
Equus_caballus    MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1484
Canis_lupus_familiaris MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1484
Mus_musculus      MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1478
Heterocephalus_glaber MGHLVRTSRDSSTEKLLQKLNWYMEKEEPIYKTS CALTTHAIGRYS PDVLKNHAKQVLP 1486
Latimeria_chalumnae MGHLVRAAKDNSTEKLFQKLNWYMEKEEPIYRSACAQTVNAIGRYSADVLKNHAEALP 1478
Rhinatrema_bivittatum LGHLVRTARGSSSTEKLLQKLNWYMEKEEPPVYRTACALTVMHMGGRYSPDVVKNHAKQVLP 1483
Xenopus_tropicalis LGHLVRTARDSSSTEKLLQKLSVWYMEKEEPTYSACTLTVMHMGGRYSPDVVKNHADLVP 1482
.....1450.....1460.....1470.....1480.....1490.....1500

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****~*:~*:~* ~* : ~* ~*:~*:~*:~*:~* ~* ~*:~* ~* ~* ~* ~* ~*
Pavo_muticus      LAFLGMHEVPDEEKGEKDDSTLWAEVWQENVPGTQGG-IRLYMQELIAITQKALQSQSWK 1544
Pavo_cristatus    LAFLGMHEVPDEEKGEKDDSTLWAEVWQENVPGTQGG-IRLYMQELIAITQKALQSQSWK 1544
Gallus_gallus     LAFLGMHEVPDEEKGEKDDSTLWAEVWQENVPGTQGG-IRLYMQELIAITQKALQSQSWK 1544
Anas_platyrhynchos LAFLGMHEVPDEEKGEKEDSNLWAEVWQENVPGTQGG-IRLYMQELIAITQKALQSQSWK 1544
Chelonia_mydas    LAFLGMHEVPDEEKGEKDDSNLWTEVWQENVPGTQGG-IRLYMQELIAITQKALQSQSWK 1545
Homo_sapiens      LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1536
Pan_troglodytes   LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1542
Macaca_mulatta    LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1543
Callithrix_jacchus LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1547
Bos_taurus        LAFLGMHEIADEEKAEEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1543
Equus_caballus    LAFLGMHEIADEEKSE--ECNLWTEVWQENVPGSFGG-IRLYLQELITISQKALQSQSWK 1541
Canis_lupus_familiaris LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELIAITQKALQSQSWK 1543
Mus_musculus      LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1537
Heterocephalus_glaber LAFLGMHEIADEEKSEKEECNLWTEVWQENVPGSFGG-IRLYLQELITITQKALQSQSWK 1545
Latimeria_chalumnae LAFLGMHEVPDEEKGEADNSSLWKEVWQENVPGSFGG-IRLYMQELIAITQKALQSQSWK 1537
Rhinatrema_bivittatum LAFLGMHEVPDEEKGEKEEFNLWAEVWQENVPGSFGG-IRLYMQELIAITQKALQSQSWK 1542
Xenopus_tropicalis LAFLAMHEVSDDEEIVEKEDSNLWKEVWQENVPGSISGGIRLYMKELIDITQKALQSQSWK 1542
.....1510.....1520.....1530.....1540.....1550.....1560

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***** ~*:~*:~* ~*:~*:~* ~*:~*:~* ~*:~*:~* ~*:~*:~* ~*:~*:~* ~*:~*:~*
Pavo_muticus      MKAQGAAAMASIAKQTG-SLVPPHLGTVLSALLQGLPGRWTWIGKEELLKAITSVVSACNT 1603
Pavo_cristatus    MKAQGAAAMASIAKQTG-SLVPPHLGTVLSALLQGLPGRWTWIGKEELLKAITSVVSACNT 1603
Gallus_gallus     MKAQGAAAMASIAKQTG-SLVPPHLGTVLSALLQGLPGRWTWIGKEELLKAITSVVSACNA 1603
Anas_platyrhynchos MKAQGAAAMASIAKQTG-SLVPPHLGTVLSALLQGLPGRWTWIGKEELLKAITSVVSACSA 1603
Chelonia_mydas    MKAQGAAAMASIAKQTG-SLVPPHLGMVVGALLQGLSGRTWTWIGKEELLKAITSVVSACSA 1604
Homo_sapiens      MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1595
Pan_troglodytes   MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1601
Macaca_mulatta    MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1602
Callithrix_jacchus MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1606
Bos_taurus        MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1602
Equus_caballus    MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1600
Canis_lupus_familiaris MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAVACVVTACSA 1602
Mus_musculus      MKAQGAIAMASISKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACST 1596
Heterocephalus_glaber MKAQGAIAMASIAKQTS-SLVPPYLGMITALLQGLAGRTWAGKEELLKAITACVVTACSA 1604
Latimeria_chalumnae MKAQGAAAMASIAKQQTGSLVPPHLGMVLSALLQGLAGRTWIGKEELLKAITSVVSACCT 1597
Rhinatrema_bivittatum MKAQGAAAMASIAKQQTGSLVPPHLGMVLSALLQGLPGRWTWIGKEELLKAITVVSACSE 1602
Xenopus_tropicalis MKAQGAAAMTSIAKQQTGSLVPPHLGMVLSALLQGLPGRWTWAGKEELLKAITVVSACSN 1602
.....1570.....1580.....1590.....1600.....1610.....1620

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/KIAD08681p1 Feb 1 12:31:18 2022

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*: . . . . . *: : : * : * : * : * : * : * : * : * : * : * : * :
Pavo_muticus      ELQKSVPGQPSVSDVIOAVLKECRKENLKYKMVALRCMAAVLQATKEDRFOELADIIFPM 1663
Pavo_cristatus    ELQKSVPGQPSVSDVIOAVLKECRKENLKYKMVALRCMAAVLQATKEDRFOELADIIFPM 1663
Gallus_gallus     ELQKSVPGQPSVSDVIOAVLKECRKENLKYKMVALRCMAAVLQATKEDRFOELADIIFPM 1663
Anas_platyrhynchos ELREAVPGQPSVGDVVOAVLKECRKENPRYKVVALRCAAGVLQATREDRFOELADIVFPM 1663
Chelonia_mydas    ELQMSVPNQPSVNDVVOAVLKECRKENLKYKMVALRCTADVLKATKEDRFOELADIVFPM 1664
Homo_sapiens      ELEKSVPNQPSSTNEILOAVLKECSKENVKYKIVAISSAADILKATKEDRFOEFSNIVIPL 1655
Pan_troglodytes   ELEKSVPSQPSSTNEILOAVLKECSKENLKYKIVAISSAADILKATKEDRFOEFSDIVIPL 1661
Macaca_mulatta    ELEKSVPNQPSSTNEILOAVLKECSKENLKYKIVAISSAADVLKATKEDRFOEFSDIVIPL 1662
Callithrix_jacchus ELEKSVPSQPSSTNEILOAVLKECSKENLKYKIVAISSAADVLKATKEDRFOEFSDIVIPL 1666
Bos_taurus        ELEKPVPGQPSSTNEILOAVLKECGRENPKYKMVAISSCAGDVLKATKEDRFOEFADIVIPL 1662
Equus_caballus    ELEKPVPSQPSSTNEILOAVLKECGRENPKYKIVAISSCAGDVLKATKEDRFOEFSDIVIPL 1660
Canis_lupus_familiaris ELEKPVPNQPSSTNEILOAVLKECKENLKYKIVAISSAADVLKATKEDRFOEFSDIVIPL 1662
Mus_musculus      ELEKSVPNQPTTNEILOAVLKECKENLKYKIVAISSAADVLKATKEDRFOEFSDIVIPL 1656
Heterocephalus_glaber ELEKSVPNQPSSTNEILOAVLKECCRENLKYKIVAISSAADVLKATKEDRFOEFSNIVIPL 1664
Latimeria_chalumnae QLQKSMPTDPTTIDVILAVLKECRKENLRYKLVALKCAADVHLATKEDRFOELAEILFPI 1657
Rhinatrema_bivittatum QLQKPVADQPSSTHDIIOAVLKECHKENPRYKIKALKCAAELVQVTKEDRFOEMADILLPL 1662
Xenopus_tropicalis QLQKSVDPQPSVDDIVIOAVLKECRKENVRYKISALKCAAADVLOSTKEDRFODLTDILFPL 1662
.....1630.....1640.....1650.....1660.....1670.....1680

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*: : : . . . . . *: : : * : * : * : * : * : * : * : * : * : * :
Pavo_muticus      IKKNSVENVGANLPKL-NEEDEDAREREVOMESLLCAFETLGKAWPRSPETQRCYRQEF 1722
Pavo_cristatus    IKKNSVENVGANLPKL-NEEDEDAREREVOMESLLCAFETLGKAWPRSPETQRCYRQEF 1722
Gallus_gallus     IKKNTVENAGASLPKL-DEEDEDAREREVOMESLLCAFETLGKAWPRSPETQRCYRQEF 1722
Anas_platyrhynchos IKKNSLESTGAGLPKH-DEEDEDMREKEVOMESLLCAFETLGKAWPRSPETQRCYRQEF 1722
Chelonia_mydas    IKKNSHESVGAGSPKN-DD-DENEKEKELOMESLLCAFESLGKAWPRNLETQRCYWOELC 1722
Homo_sapiens      IKKNSLESSGVRTT---KNEEENEKEKELOLEYLLGAFESLGKAWPRNAETQRCYRQELC 1712
Pan_troglodytes   IKKNSLESSGVRTT---KNEEENEKEKELOLEYLLGAFESLGKAWPRNAETQRCYRQELC 1718
Macaca_mulatta    IKKNSLESSGVQTT---KNEDENEKEKELOLEYLLGAFESLGKAWPRNAETQRCYRQELC 1719
Callithrix_jacchus IKKNSLESSGVRTT---KNEDENEKEKELOLEYLLGAFESLGKAWPRNAETQRCYRQELC 1723
Bos_taurus        IKKNSPESIGVRTT---KNEDENEKEKELOLESLLGAFESLGKAWPRSVETQRCYRQELC 1719
Equus_caballus    IKKNSPESTGVRTT---KNEDENEKEKELOLESLLGAFESLGKAWPRNAETQRCYRQELC 1717
Canis_lupus_familiaris IKKNSPESTGVRTT---KNEDENEKEKELOLECLLGAFESLGKAWPRNVETQRCYRREL 1719
Mus_musculus      IKKNSLESMGVRTT---KAEDENEKEKELOLESLLGAFESLGKAWPRNPDQRCYRQELC 1713
Heterocephalus_glaber IKKNSLESMGVRSPT---KTEDENEKEKELOLESLLGAFESLGKAWPRSEETQRCYRQELC 1721
Latimeria_chalumnae IKKNSPONVKGRLSKQEEEDENEKEKELOMECLLCAFETLGKAWPRSLDTQGRFOLELC 1717
Rhinatrema_bivittatum IKKSSPDNTGARS PKD-DEEDEDENEKGELOVESLLCAFESLGKIWRNPETQRCYRLEV 1721
Xenopus_tropicalis IQKTSLGLTVGARS PKDDDDDEDENVKAKELQTECLICAFLLTGRAWPRNPDQRCYRFEVC 1722
.....1690.....1700.....1710.....1720.....1730.....1740

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*: : : * : * : * : * : * : * : * : * : * : * : * : * : * :
Pavo_muticus      RLMCDRLKLSTWKVQLGVLOAMNAYFQRLVLFEEKEHADAEALTEILLETCSITHSLENK 1782
Pavo_cristatus    RLMCDRLKLSTWKVQLGVLOAMNAYFQRLVLFEEKEHADAEALTEILLETCSITHSLENK 1782
Gallus_gallus     KLMCDRLKLSTWKVQLGVLOAMNTYFERLVLFEEHADPEALTEILLETCSITHSLENK 1782
Anas_platyrhynchos KLMCDRLKLSTWKVQLGVLOAMNAYFQGLVLFEEHSDPGALREILLETCSITHSLENK 1782
Chelonia_mydas    KLMCERLKLSTWKVQLGVLOAMNAYFQGLMLFEEHSDPGALTEILLETCSITHSLENR 1782
Homo_sapiens      KLMCERLKLSTWKVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1772
Pan_troglodytes   KLMCERLKLSTWKVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1778
Macaca_mulatta    KLMCERLKLSTWKVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1779
Callithrix_jacchus KLMCERLKLSTWKVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1783
Bos_taurus        KLMCERLKLSTWKVQLGVLOAMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1779
Equus_caballus    KLMCERLKLSTWKVQLGVLOSMNAFFQGLMLLEEEHADAEALAEILLETCKSITYSLENK 1777
Canis_lupus_familiaris KLMCERLKLSTWQVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1779
Mus_musculus      KLMCERLRLSTWKVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1773
Heterocephalus_glaber KLMCERLKLSTWKVQLGVLOSMNAFFQGLMLLEEEHADPEALAEILLETCKSITYSLENK 1781
Latimeria_chalumnae KLMCERLKLSTWRVQLGVLOSMNAYFQGLMLLEKENTNVTALTEILTETCSAITFPLENK 1777
Rhinatrema_bivittatum KLMSERLKLSTWKVQLGVLOSMNAYFQGLMLLEKEFSDPSALAEILLEACPATHSLENK 1781
Xenopus_tropicalis KLMCERLKLSTWKVQHAVLQSMNAYFQGLLLEKEYSDSALMNILTETCPALAHSLENK 1782
.....1750.....1760.....1770.....1780.....1790.....1800

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/KIAD08681.pep Feb 1 12:31:18 2022

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*****:::***::: :*:***.* ** * ** :* *.****:*. :*
Pavo_muticus      SYTSVRTEALSVIQLLLTRLOESKOWESLKPEESREHLIHSLSSTMASDSRPELOEKAFILK 1842
Pavo_cristatus    SYTSVRTEALSVIQLLLTRLOESKOWESLKPEESREHLIHSLSSTMASDSRPELOEKAFILK 1842
Gallus_gallus     SYTSVRTEALSVIQLLLTRLOESKOWESLKPEESREHLIHSLSSTMASDSRPELOEKAFILK 1842
Anas_platyrhynchos SYTSIRTEALSVIQLLLFTKLEEKOWESLTAESREHLIHSLSSTMASDSRPELOEKAFILK 1842
Chelonia_mydas    SYTSIRTEALSVIELLLTRLKESKQWDSLPLESRELLIGSLTMTMVLDSRPELOEKASFLK 1842
Homo_sapiens      TYSSVRTEALSVIELLLKKLEESKQWECLTSECRVLLIESLATMEPDSRPELOEKAALLK 1832
Pan_troglodytes   TYSSVRTEALSVIELLLKKLEESKQWECLTSECRVLLIESLATMEPDSRPELOEKAALLK 1838
Macaca_mulatta    TYSSVRTEALSVIELLLKKLEESKQWECLTSECRVLLIESLATMEPDSRPELOEKAALLK 1839
Callithrix_jacchus TYSSVRTEALSVIELLLKKLEESKQWECLTSECRVLLIESLATMEPDSRPELOEKAALLK 1843
Bos_taurus        TYSSVRTEALSVIELLLKKLEESKQWASLTPECRVLLIESLGAMETDSRPELOEKASLLK 1839
Equus_caballus    TYSSVRTEALSVIELLLKKLEESKQWESLTSECRVLLIESLATMETDSRPELOEKASLLK 1837
Canis_lupus_familiaris TYSSVRTEALSVIELLLKKLEESKQWESLTSECRVLLIESLATMETDSRPELOEKASLLK 1839
Mus_musculus      TYSSVRTEALSVVELLLKKLEEKOWESLTAECRGLLIESLATMETDNRPELOEKASVLK 1833
Heterocephalus_glaber TYSSVRTEALSVIELLLKRLEESKQWESLTSECRVLLIESLATMETDSRPELOEKASLLK 1841
Latimeria_chalumnae SYSSVRTEGLSVVELLLKKLEESSQWGSLTVESRNQLISSLGTMESDSRPELREKASQLR 1837
Rhinatrema_bivittatum SYSSVRTEALSVVEMLLKRLDESEQWESLMPESRERLAGSLSAMESDSRPELRERASLLK 1841
Xenopus_tropicalis SYSSVRTEAVSVLELLLRKLEDEQWRSLTIENRSTLLASLSSTMEQDTRPELREKGALLK 1842
.....1810.....1820.....1830.....1840.....1850.....1860

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* : .
Pavo_muticus      KTLENLN 1849
Pavo_cristatus    KTLENLN 1849
Gallus_gallus     KTLENLN 1849
Anas_platyrhynchos KTLENLN 1849
Chelonia_mydas    KTLENLD 1849
Homo_sapiens      KTLENLE 1839
Pan_troglodytes   KTLENLE 1845
Macaca_mulatta    KTLENLE 1846
Callithrix_jacchus KTLENLE 1850
Bos_taurus        KTLESLO 1846
Equus_caballus    KTLENLE 1844
Canis_lupus_familiaris KTLENLE 1846
Mus_musculus      KTLESLE 1840
Heterocephalus_glaber KTLENL- 1847
Latimeria_chalumnae KQLATPS 1844
Rhinatrema_bivittatum KKFNLC 1848
Xenopus_tropicalis KKLEN-- 1847
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