

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Xenopus_tropicalis	MGMKGIIF-----LLLMLAVPQTYCAESGNDNSVFDLFELTGYNRKTGSRKPEGLH	53
Rhinatrema_bivittatum	MNLFVPLS-----LLLLLTVCSTSQIPESVADDNSVFDLFELTGYSRKGPGRKFGGVH	53
Pavo_muticus	MGPAAVLVLL-----LLAL-GGPEAKRTAESRGDDDSVFDLFELAGLIRKGAGRRAPGVH	54
Pavo_cristatus	MGPAAVLVLL-----LLAL-GGPEAKRTAESRGDDDSVFDLFELAGLIRKGAGRRAPGVH	54
Gallus_gallus	MGPAAVVVL-----LLAL-GGPEAKRTAESRGDDDSVFDIFELT--VRKGAGRRAPGVH	52
Anas_platyrhynchos	MGPAALLVLV-----LLLLRGGSSEARRTAESRADDNSVFDLFELIGFIRKGAGRRAPGVH	55
Chelonia_mydas	MELSGGLFLL-----LMFG--VCGANQIPESGGDDNSVFDLFELIGFTRKGAGRRATGVH	53
Homo_sapiens	MGLAWGLG-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Pan_troglodytes	MGLAWGLG-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Macaca_mulatta	MGLAWGLG-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Callithrix_jacchus	MGLAWGLG-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Equus_caballus	MGLAWGLS-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Pteropus_alecto	MGLAWGLS-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Bos_taurus	MGLAWGLG-----VLLLLHACGSNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Mus_musculus	MELLRGLG-----VLFLMHVCGTNRIPESGGDN-SVFDIFELTGAARKGSRR-----	47
Ornithorhynchus_anatinus	MGPLRGLAPLPMLLLLLLLLLGGASAPRWVVGSRGDD-GVFDLFELIGASRKGSRR-----	54
Latimeria_chalumnae	MKLPQGVFL-----LIMLVGLCGASRSLESGGDDNGVYDLFEITKATRKYYGVN-----	49
	1.....10.....20.....30.....40.....50.....60	
Xenopus_tropicalis	LVKGPDPSSPAYRIEDADLIPLPEVKFQDILLDAIRADRGFILLATLRQAKKSRGALLSV	113
Rhinatrema_bivittatum	LVKGPDTSSPAFRIENAEIPLSLADEKFQDLIDAIHNERGFILLATLRQAKKSRGTILAV	113
Pavo_muticus	PVKGPEPSSPAYRIEDASRIAPVPSKFDLLDIIHAKEGFILLATLRQAKKSRGTLLAV	114
Pavo_cristatus	PVKGPEPSSPAYRIEDASRIAPVPSKFDLLDIIHAKEGFILLATLRQAKKSRGTLLAV	114
Gallus_gallus	LVKGPDTSSPAYRIEDASRIAPVPSKFDLLDIIHAKEGFILQATLRQAKKSRGTLLAV	112
Anas_platyrhynchos	LVKGPESSSPAYRIEDASRIAPVPAKFDLLDAIHAKEGFILLATLRQAKKSRGTLLAV	115
Chelonia_mydas	LVKGPDPSSPAYRIEDASRIAPVDDKFQDILLDAIHAKEGFILLATLRQAKKSRGTLLAV	113
Homo_sapiens	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAL	107
Pan_troglodytes	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAL	107
Macaca_mulatta	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAL	107
Callithrix_jacchus	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAL	107
Equus_caballus	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAV	107
Pteropus_alecto	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAV	107
Bos_taurus	LVKGPDPSSPAFRIEDANLIPPVPDDKFQDLVDVAVRAEKGFLLLASLRQMKKTRGTLLAV	107
Mus_musculus	LVKGDQLSSPAFRIENANLIPVDDKFQDILLDAVWADKGFIFLASLRQMKKTRGTLLAV	107
Ornithorhynchus_anatinus	LVKGPDPSSPAYRIEDAGLIPVDDKFQDLVDVAVRTEKGFILLATLRQLKKTRGTLLAV	114
Latimeria_chalumnae	LITGPDPSPTYKILNVDRIPPVPSIFLELLDQIQTERGFLLLATLKLKGTGRGSLAV	109
70.....80.....90.....100.....110.....120	
Xenopus_tropicalis	ERKDGAGHIFSLISNGRAGTLDLSLGERKQOVVSVEDALLATGHWKNITLFVQEDRAQL	173
Rhinatrema_bivittatum	ERYDSSGHIFNLVSNRAGTLDITLSGEGKQOVVSVIEDALLATGHWKNITLFVQEDRAQL	173
Pavo_muticus	ERKDGSGHIFSLVSNKGAGTLDLSLSDGKQQLVSVEDALLATGHWKNITLFVQEDRAQL	174
Pavo_cristatus	ERKDGSGHIFSLVSNKGAGTLDLSLSDGKQQLVSVEDALLATGHWKNITLFVQEDRAQL	174
Gallus_gallus	ERKDGSGHVFSLVSNKGAGTLDLSLSDGKQQLVSVEDALLATGHWKNITLFVQEDRAQL	172
Anas_platyrhynchos	ERKDGSGHVFSLVSNKGAGTLDLSLSDGKQQLVSVEDALLATGHWKNITLFVQEDRAQL	175
Chelonia_mydas	ERKDGSGHIFNLVSNKGAGTLDLSLSDGKQOVVSVEDALLATGHWKNITLFVQEDRAQL	173
Homo_sapiens	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Pan_troglodytes	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Macaca_mulatta	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Callithrix_jacchus	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Equus_caballus	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Pteropus_alecto	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Bos_taurus	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Mus_musculus	ERKDHSGQVFSVSVSNKGAGTLDLSLTVQKQHVSVVEEALLATGQWKSITLFVQEDRAQL	167
Ornithorhynchus_anatinus	ERADGSGHVFSLVSNKGAGTLDLSLAVPGKQOVVSVVEEALLATGQWKSITLFVQEDRAQL	174
Latimeria_chalumnae	ENQDQPGHVFDILSNKGAGTLDLFTVVDGKQHVSVLEEAKLATAHWKNITLFVQEDRAQL	169
130.....140.....150.....160.....170.....180	

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Xenopus_tropicalis	YVGCDKMENAEALDVPIQKIFTEDLASKAHLRVAKGGVKDN-FQGVLQNVRFVFGTTLEAI	232
Rhinatrema_bivittatum	YVGCEKMENAEALDIPIQKIFNRDLANIARLRIAKGGVKDN-FQGVLQNLRFVFGTTIEAI	232
Pavo_muticus	YVGCEKMENAEALDIPIONIFTRDLASSARLRIAKGGVNDN-FQGLLQNVRFVFGTTLETI	233
Pavo_cristatus	YVGCEKMENAEALDIPIONIFTRDLASSARLRIAKGGVNDN-FQGLLQNVRFVFGTTLETI	233
Gallus_gallus	YVGCEKMENAEALDIPIONIFTRDLASSARLRIAKGGVNDN-FQGLLQNVRFVFRTTLETI	231
Anas_platyrhynchos	YVGCEKMENAEALDIPIONIFTRDLASSARLRIAKGGVNDN-FQGLLQNVRFVFGTTLETI	234
Chelonia_mydas	YVGCEKMENAEALDIPIONIFTRDLASIAKLRIAKGGVNDN-FQGVLQNVRFVFGTTLEAI	232
Homo_sapiens	YIDCEKMENAEALDVPIQSVFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDI	226
Pan_troglodytes	YIDCEKMENAEALDVPIQSVFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDI	226
Macaca_mulatta	YIDCEKMENAEALDVPIQSVFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDI	226
Callithrix_jacchus	YIDCEKMENAEALDVPIQSVFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDI	226
Equus_caballus	YIDCEKMENAEALDVPIQSIFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDI	226
Pteropus_alecto	YIDCEKMENAEALDVPIQSIFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDV	226
Bos_taurus	YIDCEKMENAEALDVPIQSIFTRDLASIARLRIAKGGVNDN-FQGVLQNVRFVFGTTPEDI	226
Mus_musculus	YIDCDKMESAEALDVPIQSIFTRDLASVARLRVAKGDVNDN-FQGVLQNVRFVFGTTPEDI	226
Ornithorhynchus_anatinus	YVGCDKMENAEALDVPIQSVIFTRDLAGHARLYVARGGVNDN-FQGLLQNVRFVFGTTPEDI	233
Latimeria_chalumnae	YVGCDKIENVELEAPIQKILHPSIASSTRRLRAKGNVKENNFQGSLSNVRFVFGTTLEAI	229
190.....200.....210.....220.....230.....240	

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<i>Xenopus_tropicalis</i>	LRNKGCSSMTNSVIITLDN-PVNGSSPAIRNTNYIGHKTKDLHAVCGISCDLTKLFAEMKG	291
<i>Rhinatrema_bivittatum</i>	LRNKGCASSTN-TITFNN-PVNGSSPAIRTSYTGHKIKDIEAICGFSCEMTNMFLEMRR	290
<i>Pavo_muticus</i>	LRNKGCSSSTSAAIITLDN-PMNGSSPAIRNTNYIGHKTKDIAVCGFSCELTNMFVELQG	292
<i>Pavo_cristatus</i>	LRNKGCSSSTSAAIITLDN-PMNGSSPAIRNTNYIGHKTKDIAVCGFSCELTNMFVELQG	292
<i>Gallus_gallus</i>	MRNKGCSSSTSAAIITLDK-PMNGSSPAIRNTNYIGHKTKDIAVCGFSCELTNMFVELQG	290
<i>Anas_platyrhynchos</i>	LRNKGCSSSTSAAIITLDN-PMNGSSPAIRNTNYIGHKTKDIAVCGFSCELTNMFVELQG	293
<i>Chelonia_mydas</i>	LRNKGCSSSTSAAIITLDN-PINGSSPAIRNTNYIGHKTKDIAICGFSCELTNMFVEMQG	291
<i>Homo_sapiens</i>	LRNKGCSSSTSLLTLDNNVVGSSPAIRNTNYIGHKTKDLQAICGISCELTSSMVLELRG	286
<i>Pan_troglodytes</i>	LRNKGCSSSTSLLTLDNNVVGSSPAIRNTNYIGHKTKDLQAICGISCELTSSMVLELRG	286
<i>Macaca_mulatta</i>	LRNKGCSSSTSLLTLDNNVVGSSPAIRNTNYIGHKTKDLQAICGISCELTSSMVLELRG	286
<i>Callithrix_jacchus</i>	LRNKGCSSSTNVLLTLDNNVVGSSPAIRNTNYIGHKTKDLQAICGISCELTSSMVLELRG	286
<i>Equus_caballus</i>	LRNKGCSSSTNVLLTLNNVVGSSPAIRNTNYIGHKTKDLQAICGISCELTSSNMVLELRG	286
<i>Pteropus_alecto</i>	LRNKGCSSSTNVLLTLDNNVVGSSPAIRNTNYIGHKTKDLQAICGISCELTSSMVLELRG	286
<i>Bos_taurus</i>	LRNKGCSSSTSVMFVTLDDNNVVGSSPAIRTDYIGHKTKDLQAICGISCELTSSMVLELRG	286
<i>Mus_musculus</i>	LRNKGCSSSTNVLLTLDNNVVGSSPAIRNTNYIGHKTKDLQAICGLSCELTSSMVLELKG	286
<i>Ornithorhynchus_anatinus</i>	LRNKGCSSRATSAVIITLDN-PVNGSSPAIRTDFIGHKTKDTQGVCGFSCELTGMFMELKG	292
<i>Latimeria_chalumnae</i>	LRNKGCSSSFSTETIKLDN-PVNGSSPAIRSNYIGHKIKN---VCGFTCELTTEMFKEMKG	285
250.....260.....270.....280.....290.....300	

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<i>Xenopus_tropicalis</i>	LRTLVTSLODQVTKETERNELIAQRVTMTPGACLHNGVLHKNRDEWTVDSCTECTCNSA	351	
<i>Rhinatrema_bivittatum</i>	LQNIIVRSVQEKVQKVTEENQLLAGRAPSIILGVCVHNGIOHEHREEWTIDSCTECTCNSA	350	
<i>Pavo_muticus</i>	LRSMTTLQDRVRKVTEENELIAKVQITPGVCIHNGILHKNKEEWTIDSCTECTCNSA	352	
<i>Pavo_cristatus</i>	LRSMTTLQDRVRKVTEENELIAKVQITPGVCIHNGILHKNKEEWTIDSCTECTCNSA	352	
<i>Gallus_gallus</i>	LRSMTTLQDRVRKVTEENELIAKVQITPGVCIHNGILHKNKEEWTIDSCTECTCNSA	350	
<i>Anas_platyrhynchos</i>	LRSMTTLQDRVRKVTEENELIAKVQITPGVCIHNGIMHKNKEEWTIDSCTECTCNSA	353	
<i>Chelonia_mydas</i>	LRSMTTLQDRVRKVTEENELIAKVQITPGVCIHNGILHKNKEEWTIDSCTECTCNSA	351	
<i>Homo_sapiens</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRNNEEWTVDSCTEHCNSV	345	
<i>Pan_troglodytes</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRNNEEWTVDSCTEHCNSV	345	
<i>Macaca_mulatta</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRNNEEWTVDSCTECRCONSV	345	
<i>Callithrix_jacchus</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRNNEEWTVDSCTECRCONSV	345	
<i>Equus_caballus</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRNNEEWTVDSCTECRCONSV	345	
<i>Pteropus_alecto</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRNNEEWTVDSCTEHCNSV	345	
<i>Bos_taurus</i>	LRTIVTTLQDSIRKVTEENKELAN-ELRRPPLCYHNGVQYRTGDEWTVDSCTEHCNSV	345	
<i>Mus_musculus</i>	LRTIVTTLQDSIRKVTEENRELVS-ELKRPPPLCFHNGVQYKNNNEEWTVDSCTEHCNSV	345	
<i>Ornithorhynchus_anatinus</i>	LRTIVTGLQDSIRKVTEENELLINGEVQRPPICFHNGVQYRNNEEWTVDSCTECRCONSV	352	
<i>Latimeria_chalumnae</i>	LQSVITQLVEDLNNMRQLNEMTGGRIISQGTCTIYKGNVHRENEEWTVDNMCESCNSA	345	
310.....320.....330.....340.....350.....360		

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Xenopus_tropicalis	TICRKVS	CPLMPCSNATIPDGECCPRCWPS	-DSADDDWSPWSDWTPCSVT	CGHGIQQRGR	410	
Rhinatrema_bivittatum	TICRKIS	CPLMTCANATIPDGECCPRCWPS	-DSADDDWSPWSEWTS	CSVT	CGSGIQQRGR	409
Pavo_muticus	TICRKVS	CPLMPCSNATVPDGECCPRCWPS	-DYADDGWSPWSEWTS	CSVT	CGNGIQQRGR	411
Pavo_cristatus	TICRKVS	CPLMPCSNATVPDGECCPRCWPS	-DYADDGWSPWSEWTS	CSVT	CGNGIQQRGR	411
Gallus_gallus	TICRKVS	CPLMPCSNATVPDGECCPRCWPS	-DYADDGWSPWSEWTS	CSVT	CGNGIQQRGR	409
Anas_platyrhynchos	TICRKVS	CPLMPCSNATVPDGECCPRCWPS	-DYADDGWSPWSEWTS	CSVT	CGNGIQQRGR	412
Chelonia_mydas	TICRKVS	CPLMPCSNATVPDGECCPRCWPS	-DYAEDGWSPWSEWTS	CSVT	CGNGVQQRGR	410
Homo_sapiens	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CS	STCGNGIQQRGR	404
Pan_troglodytes	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CS	STCGNGIQQRGR	404
Macaca_mulatta	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CS	STCGNGIQQRGR	404
Callithrix_jacchus	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CS	STCGNGIQQRGR	404
Equus_caballus	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CSVT	CGNGIQQRGR	404
Pteropus_alecto	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CS	SATCGNGIQQRGR	404
Bos_taurus	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CSVT	CGNGIQQRGR	405
Mus_musculus	TICKKVS	CPIMPCSNATVPDGECCPRCWPS	-DSADDGWSPWSEWTS	CS	SATCGNGIQQRGR	404
Ornithorhynchus_anatinus	TICKKVS	CPLMPCSNATIPDGECCPRCWPS	-DSAEDGWSPWSEWTT	CS	SATCGNGIQQRGR	411
Latimeria_chalumnae	TFCSKVS	CPLVSCANATVPDGECCPRCLPN	-DSEAEDWSPWSEWT	PCSV	TCGIGTQQRGR	404
370.....380.....390.....400.....410.....420					

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Xenopus_tropicalis	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGSGQITRIRLCNS	470
Rhinatrema_bivittatum	SCDSLNNRCIGSSMQTRSCHIQECDKRFKQDGGWSHSPWSSCSVTCGSGQITRIRLCNS	469
Pavo_muticus	SCDSLNNRCEGSSVQTRTCHLQECDKRFKQDGGWSHSPWSSCSVTCGTGVITRIRLCNS	471
Pavo_cristatus	SCDSLNNRCEGSSVQTRTCHLQECDKRFKQDGGWSHSPWSSCSVTCGTGVITRIRLCNS	471
Gallus_gallus	SCDSLNNRCEGSSVQTRTCHLQECDKRFKQDGGWSHSPWSSCSVTCGTGMITRIRLCNS	469
Anas_platyrhynchos	SCDSLNNRCEGSSVQTRTCHLQECDKRFKQDGGWSHSPWSSCSVTCGTGMITRIRLCNS	472
Chelonia_mydas	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGTGMITRIRLCNS	470
Homo_sapiens	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Pan_troglodytes	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Macaca_mulatta	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Callithrix_jacchus	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Equus_caballus	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Pteropus_allecto	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Bos_taurus	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	465
Mus_musculus	SCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	464
Ornithorhynchus_anatinus	SCDSLNNRCEGSSVQTRTCHLRECDKRFNQDGGWSHSPWSSCSVTCGDGVITRIRLCNS	471
Latimeria_chalumnae	SCDRINNICLGPSVQTRTCHIQECDKRFKQDGGWSYSPWSSCSVTCGIGVKTRIRLCNS	464
430.....440.....450.....460.....470.....480	

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Xenopus_tropicalis	PVPQLNGKPCGEARETNKPCOKDPCPINGQWGPWSLWDTCVTCTCGGGMMKRERLCNNPKP	530
Rhinatrema_bivittatum	PRPQLNGKECWGEARENKPCOKDPCPIHGQWGPWSPWDSCTVTCGGGIQKGRRLCNDPEP	529
Pavo_muticus	PVPQLNGKPCGEARETKSCOKDPCPINGNWGPWSPWDACTVTCGGGLQKRSRLCNNPEP	531
Pavo_cristatus	PVPQLNGKPCGEARETKSCOKDPCPINGNWGPWSPWDACTVTCGGGLQKRSRLCNNPEP	531
Gallus_gallus	PVPQLNGKPCGEARETKSCOKDPCPINGNWGPWSPWDACTVTCGGGLQKRSRLCNNPEP	529
Anas_platyrhynchos	PVPQLNGKPCGEARETKSCOKDPCPINGNWGPWSPWDACTVTCGGGLQKRSRLCNNPEP	532
Chelonia_mydas	PVPQMNGKPCGEARETKSCOKDPCPINGNWGPWSPWDVCTVTCGGGIQKGRRLCNDPEP	530
Homo_sapiens	PSPQMNGKPCGEARETKACKKDACPINGGWGPWSPWDICSVTCGGGVQKRSRLCNNPTP	524
Pan_troglodytes	PSPQMNGKPCGEARETKACKKDACPINGGWGPWSPWDICSVTCGGGVQKRSRLCNNPTP	524
Macaca_mulatta	PSPQMNGKPCGEARETKACKKDACPINGGWGPWSPWDICSVTCGGGVQKRSRLCNNPTP	524
Callithrix_jacchus	PSPQMNGKPCGEARETKACKKDACPINGGWGPWSPWDICSATCGGGVQKRRRLCNNPAP	524
Equus_caballus	PSPQMNGKPCGEARETKACRKDACPINGGWGPWSPWDICSVTCGGGVQKRSRLCNNPTP	524
Pteropus_alecto	PSPQMNGKPCGEARETKVKCKDACPVNGGWGPWSPWDICSVTCGGGVQKRSRLCNNPTP	524
Bos_taurus	PSPQMNGKPCGKARETKACOKDSPINGGWGPWSPWDICSVTCGGGVQKRSRLCNNPTP	525
Mus_musculus	PSPQMNGKPCGEARETKACKKDACPINGGWGPWSPWDICSVTCGGGVQRRLCNNPTP	524
Ornithorhynchus_anatinus	PSPQMNGKPCGGEARETKACOKDACPINGGWGPWSPWDVCSATCGGGLOQRRLCNNPKP	531
Latimeria_chalumnae	PTPQMGRQCCEGEGRETQECOKDPCPINGNWGPWSPWNCTVTCGGGIQKHSRLCDSPMP	524
490.....500.....510.....520.....530.....540	

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Xenopus_tropicalis QYGGKECIGDPTDSQICNKQDCPIDGCLSNPCFAGVKCTSFIDGSWKCGSCPPGYRGNGI 590
Rhinatrema_bivittatum RYGGKDCIGDILETQICNKEDCPIDGCLSNPCFVGTKCTSFDPGSKWKGACPSGYQNGI 589
Pavo_muticus QYGGKTCVGDAGKTQVCNKQDCPVDGCLSNPCFAGTTCTSSPDGSKWKGACPAGYHGDGI 591
Pavo_cristatus QYGGKTCVGDAGKTQVCNKQDCPVDGCLSNPCFAGTTCTSSPDGSKWKGACPAGYHGDGI 591
Gallus_gallus QYGGKACVGEAKGTQVCNKQDCPVDGCLSNPCFAGTTCTSSPDGSKWKGACPAGYHNGI 589
Anas_platyrhynchos QYGGKTCVGEAKGTQVCNKQDCPIDGCLSNPCFAGTTCTSSPDGSKWKGACPAGYHGDGI 592
Chelonia_mydas QYGGKDCIGDATGTQVCNKQDCPIDGCLSNPCFAGTTCTSSPDGSKWKGACPTGYHNGV 590
Homo_sapiens QFGGKDCVGDVTENQICNKQDCPIDGCLSNPCFAGVKCTSYPDGSKWKGACPPGYSGNGI 584
Pan_troglodytes QFGGKDCVGDVTENQICNKQDCPIDGCLSNPCFAGVKCTSYPDGSKWKGACPPGYSGNGI 584
Macaca_mulatta QFGGKDCIGDVTENQICNKQDCPIDGCLSNPCFAGVKCTSYPDGSKWKGACPPGYSGNGI 584
Callithrix_jacchus QFGGKDCIGDVTENQICNKQDCPIDGCLSNPCFAGVKCTSYPDGSKWKGACPPGYSGNGI 584
Equus_caballus QFGGKDCVGDVTENQICNKQDCPIDGCLSNPCFAGTKCTSYPDGSKWKGACPPGYSGNGV 584
Pteropus_alecto QFGGKDCVGEVMENQICNEQDCPIDGCLSNPCFAGTKCTSYPDGSKWKGACPPGYGGNGV 584
Bos_taurus QFGGKDCIGDVTENQICNKQDCPIDGCLSNPCFAGVQCTSYPDGSKWKGACPPGYSGDGV 585
Mus_musculus QFGGKDCVGDVTENQVCNKQDCPIDGCLSNPCFAGAKCTSYPDGSKWKGACPPGYSGNGI 584
Ornithorhynchus_anatinus QFGGKDCVGDATGSQTCNKQDCPIDGCLSNPCFAGTKCTSFADGTWKKGACPSGYTGDGV 591
Latimeria_chalumnae KYGGKECVGEATATQICNKEDCPIDGCLSNPCFAGTKCTSFDPGSKWKGACPAGYQNGV 584
.....550.....560.....570.....580.....590.....600

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* *::*** **::** ** **.*.*****:* * *:***:.* * .*****
Xenopus_tropicalis TCKDIDECKEVPDACSFLNGVHRCENTEPGYNCLPCPPRFTGTQPFKGIDEAKANKQVC 650
Rhinatrema_bivittatum QCHDIDECKEVPDTCFVHNGVHRCENTEPGYNCLPCPPRFTGTQPFGRNIDEATANKQVC 649
Pavo_muticus HCQDIDECKEVPDACSFLNGVHRCENTEPGYNCLPCPPRFTGTSQPFGRSVEDAMANKQVC 651
Pavo_cristatus HCQDIDECKEVPDACSFLNGVHRCENTEPGYNCLPCPPRFTGTSQPFGRSVEDAMANKQVC 651
Gallus_gallus HCQDIDECKEVPDACSFLNGVHRCENTEPGYNCLPCPPHFTGTSQPFGRSVEDATANKQVC 649
Anas_platyrhynchos HCEDIDECKEVPDACSFLNGVHRCENTEPGYNCLPCPPRFTGTQPFGRSVEDAMANKQVC 652
Chelonia_mydas QCKDIDECKEVPDTCFVHNGVHRCENTEPGYNCLPCPPRFTGTQPFGRGIEDATANKQVC 650
Homo_sapiens QCTDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFQGVHATANKQVC 644
Pan_troglodytes QCTDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFQGVHATANKQVC 644
Macaca_mulatta QCTDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFQGVHATANKQVC 644
Callithrix_jacchus QCRDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFQGVHATANKQVC 644
Equus_caballus QCEDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFQGVHAAANKQVC 644
Pteropus_alecto QCKDIDECKLVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTPQPFQGVHATANKQVC 644
Bos_taurus ECKDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFGRGVHATANKQVC 645
Mus_musculus QCKDVDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFTGTSQPFGRGVHATANKQVC 644
Ornithorhynchus_anatinus RCKDIDECKEVPDACSFLNGVHRCENTDPGYNCLPCPPRFAGPRPFGRSIEFAAANKQVC 651
Latimeria_chalumnae QCEDIDECKEVPDTCFVHNGVHRCENTEPGYNCLPCPPRFNGLQPYGRGVHATANKQVC 644
.....610.....620.....630.....640.....650.....660

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**::***:*****:***:***:***:*****:*****:*****:***:
Xenopus_tropicalis KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 710
Rhinatrema_bivittatum KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 709
Pavo_muticus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 711
Pavo_cristatus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 711
Gallus_gallus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 709
Anas_platyrhynchos KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 712
Chelonia_mydas KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 710
Homo_sapiens KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Pan_troglodytes KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Macaca_mulatta KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Callithrix_jacchus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Equus_caballus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Pteropus_alecto KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Bos_taurus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 705
Mus_musculus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
Ornithorhynchus_anatinus KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 711
Latimeria_chalumnae KPRNPCTDGTHDCNKNACNYLGHSFDPMYRCECKPGYAGNGIICGEDTDLGWPENLV 704
.....670.....680.....690.....700.....710.....720

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*****
Xenopus_tropicalis  CVANATYHCKMKDNCNPLPNSGQEDYDKDGMGDACDKDDDDGILDDRDNCPFYVNPQAQYD  770
Rhinatrema_bivittatum CVANATYHCTKDNCNPLPNSGQEDYDKDGIGDACDNDSDGILDERDNCPFIYNPQQYD  769
Pavo_muticus        CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQQYD  771
Pavo_cristatus      CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQQYD  771
Gallus_gallus       CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQQYD  769
Anas_platyrhynchos  CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQQYD  772
Chelonia_mydas      CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQQYD  770
Homo_sapiens        CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Pan_troglodytes     CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Macaca_mulatta      CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Callithrix_jacchus  CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Equus_caballus      CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Pteropus_alecto     CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Bos_taurus          CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  765
Mus_musculus        CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
Ornithorhynchus_anatinus CVANATYHCKKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  771
Latimeria_chalumnae CVANATYHCTKDNCNPLPNSGQEDYDKDGIGDACDNDSDGIPDDRDNCPFIYNPQAQYD  764
.....730.....740.....750.....760.....770.....780

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****:*****. **** * * * * * ****: ***** ****: * : * :
Xenopus_tropicalis  YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  830
Rhinatrema_bivittatum YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  829
Pavo_muticus        YDRDEVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  831
Pavo_cristatus      YDRDEVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  831
Gallus_gallus       YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  829
Anas_platyrhynchos  YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  832
Chelonia_mydas      YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  830
Homo_sapiens        YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Pan_troglodytes     YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Macaca_mulatta      YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Callithrix_jacchus  YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Equus_caballus      YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Pteropus_alecto     YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Bos_taurus          YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  825
Mus_musculus        YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
Ornithorhynchus_anatinus YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  831
Latimeria_chalumnae YDRDDVGDRCDNCPYHNHPDQADTDNNGEGDACAVIDGDLNERDNCPYVYNVDQRT  824
.....790.....800.....810.....820.....830.....840

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* *****:*****:***: * : * * : * * : *****:*****
Xenopus_tropicalis  DKDGVGDQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  890
Rhinatrema_bivittatum DMGVDGQCDNCPMEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  889
Pavo_muticus        DLDGVGDQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  891
Pavo_cristatus      DLDGVGDQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  891
Gallus_gallus       DLDGVGDQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  889
Anas_platyrhynchos  DLDGVGDQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  892
Chelonia_mydas      DLDGVGDQCDNCPMEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  890
Homo_sapiens        DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Pan_troglodytes     DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Macaca_mulatta      DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Callithrix_jacchus  DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Equus_caballus      DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Pteropus_alecto     DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Bos_taurus          DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  885
Mus_musculus        DMGVDGQCDNCPLEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
Ornithorhynchus_anatinus DMGVDGQCDNCPMEHNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  891
Latimeria_chalumnae DWDGVGDQCDNCPLENNPEQDSDSLIGDKCDNNQDIDEDGHQNNLDNCPYVNPANQAD  884
.....850.....860.....870.....880.....890.....900

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** *****:***:*****. **:* *:***** *: ***.*:*** *
Xenopus_tropicalis HDKDGKGDACDHDDNDGVPDDKDNCRVLVNPDPQTDSDGGRGDACQYDFDDDNIPDAED 950
Rhinatrema_bivittatum HDGDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQTDSDGGRGDICQDDFDQDKIPDIHD 949
Pavo_muticus HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQADS DGDGRGDACKDDFDQDSVPDIID 951
Pavo_cristatus HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQADS DGDGRGDACKDDFDQDSVPDIID 951
Gallus_gallus HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQADS DGDGRGDACKDDFDQDSVPDIID 949
Anas_platyrhynchos HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQADS DGDGRGDACKDDFDQDSVPDIID 952
Chelonia_mydas HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQTDSDGGRGDACKDDFDQDNVPDIID 950
Homo_sapiens HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Pan_troglodytes HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Macaca_mulatta HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Callithrix_jacchus HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Equus_caballus HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Pteropus_alecto HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Bos_taurus HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDQDKVPDIID 945
Mus_musculus HDKDGKGDACDHDDNDGIPDDRDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 944
Ornithorhynchus_anatinus HDKDGKGDACDHDDNDGVPDDKDNCRVLVNPDPQKDS DGDGRGDACKDDFDHDSVPDIID 951
Latimeria_chalumnae HDKDGKGDACDHDDNDGIPDDKDNCRVLVNPDPQLDS DGDGRGDACKDDFDQDNVPDIID 944
.....910.....920.....930.....940.....950.....960

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:****.*:*** *****:***:***** *****:***:***.
Xenopus_tropicalis VCPENVEISTIDFRKFQMVPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1010
Rhinatrema_bivittatum VCPENVEISETIDFRKFQMVPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1009
Pavo_muticus ICPENVEISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1011
Pavo_cristatus ICPENVEISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1011
Gallus_gallus ICPENVEISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1009
Anas_platyrhynchos ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1012
Chelonia_mydas ICPENVDISETIDFRRFQMVPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1010
Homo_sapiens ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
Pan_troglodytes ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
Callithrix_jacchus ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
Equus_caballus ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
Pteropus_alecto ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
Bos_taurus ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1005
Mus_musculus ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
Ornithorhynchus_anatinus ICPENVDISETIDFRRFQMIPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1011
Latimeria_chalumnae VCPENFEISETIDFRRFQMVPLDPKGTSQLDPNWWVRHQGKELVQTVNCDPGLAVGFDEF 1004
.....970.....980.....990.....1000.....1010.....1020

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:*****:*****:*****:*****:***:*** ** *****:***
Xenopus_tropicalis AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQTYWDTTPTVAQGYSGLSIK 1070
Rhinatrema_bivittatum SVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQTYWDTTPTKAQGYSGLSIK 1069
Pavo_muticus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQSYWDTTPTKAQGYSGLSIK 1071
Pavo_cristatus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQSYWDTTPTKAQGYSGLSIK 1071
Gallus_gallus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQSYWDTTPTKAQGYSGLSIK 1069
Anas_platyrhynchos AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQSYWDTTPTKAQGYSGLSIK 1072
Chelonia_mydas AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQSYWDTTPTKAQGYSGLSIK 1070
Homo_sapiens AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1064
Pan_troglodytes AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1064
Macaca_mulatta AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1064
Callithrix_jacchus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1064
Equus_caballus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1064
Pteropus_alecto AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQSYWDTNPTRAQGYSGLSVK 1064
Bos_taurus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1065
Mus_musculus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTNPTRAQGYSGLSVK 1064
Ornithorhynchus_anatinus AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDTTPTIAQGYSGLSVK 1071
Latimeria_chalumnae AVDFSGTFFINTERDDDDYAGFVFGYQSSSRFYVVMWKQITQTYWDTTPTKAQGYSGLSIK 1064
.....1030.....1040.....1050.....1060.....1070.....1080

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*****:*****:* *****: *****:*****:***:
Xenopus_tropicalis VVNSTSGPGEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWHLTHRPKTGFIRVV 1130
Rhinatrema_bivittatum VVNSTTGPEHLRNALWHTGNTLGOVRTLWHDPRQTGWKDFATAYRWHLTHRPKTGFIRVV 1129
Pavo_muticus VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVV 1131
Pavo_cristatus VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVV 1131
Gallus_gallus VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVV 1129
Anas_platyrhynchos VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVV 1132
Chelonia_mydas VVNSTTGPEHLRNALWHTGNTAGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVI 1130
Homo_sapiens VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVV 1124
Pan_troglodytes VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVV 1124
Macaca_mulatta VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVV 1124
Callithrix_jacchus VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVV 1124
Equus_caballus VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVV 1124
Pteropus_alecto VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVV 1124
Bos_taurus VVNSTTGPEHLRNALWHTGNTSGQVRTLWHDPRHIGWKDFTAYRWHLTHRPKTGFIRVV 1125
Mus_musculus VVNSTTGPEHLRNALWHTGNTPGQVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVV 1124
Ornithorhynchus_anatinus VVNSTTGPEHLRNALWHTGNTTGOVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGYIRVV 1131
Latimeria_chalumnae VVNSTTGPEHLRNALWHTGHTAGQVRTLWHDPRHTGWKDFATAYRWHLTHRPKTGYIRVV 1124
.....1090.....1100.....1110.....1120.....1130.....1140

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*:****:*****.***** *****.***:****:
Xenopus_tropicalis MYEGKKVMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDS 1176
Rhinatrema_bivittatum MHEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMTFFSDLKYECRDS 1175
Pavo_muticus MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECR-- 1175
Pavo_cristatus MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECR-- 1175
Gallus_gallus MYEGKKIMADSGPIYDKTYAGGRLGLFDFSQEMVFFSDLKYECRDP 1175
Anas_platyrhynchos MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP 1178
Chelonia_mydas MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP 1176
Homo_sapiens MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP 1170
Pan_troglodytes MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP 1170
Macaca_mulatta MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP 1170
Callithrix_jacchus MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDS 1170
Equus_caballus MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDS 1170
Pteropus_alecto MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDS 1170
Bos_taurus MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDS 1171
Mus_musculus MYEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDMKYECRDS 1170
Ornithorhynchus_anatinus MYEGKKIMADSGAIYDKTYAGGRLGLFVFSQEMVFFSDLKYECKDS 1177
Latimeria_chalumnae MYEGKKIMADSGAIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDT 1170
.....1150.....1160.....1170.....1180.....

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