

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Pavo_muticus	-----	
Pavo_cristatus	-----	
Gallus_gallus	-----	
Anas_platyrhynchos	-----	
Chelonia_mydas	-----	
Mus_musculus	-----	
Rattus_norvegicus	MESTRVFSWIPGQEREGERDRERRGKRKERTDRRREATLASLPPSFKHFIVFWREKEEE	60
Bos_taurus	-----	
Equus_caballus	-----	
Canis_lupus_familiaris	-----	
Homo_sapiens	-----	
Pan_troglodytes	-----	
Macaca_mulatta	-----	
Callithrix_jacchus	-----	
Rhinatrema_bivittatum	-----	
Xenopus_tropicalis	-----	
Latimeria_chalumnae	-----	
	1.....10.....20.....30.....40.....50.....60	

Pavo_muticus	-----	
Pavo_cristatus	-----	
Gallus_gallus	-----	
Anas_platyrhynchos	-----	
Chelonia_mydas	-----	
Mus_musculus	-----	
Rattus_norvegicus	RDQIAESQSRSLQSLPSRAARGVWIVSPVSHARTLRFAAATQGPPLGPGPLAPLCAL	120
Bos_taurus	-----	
Equus_caballus	-----	
Canis_lupus_familiaris	-----	
Homo_sapiens	-----	
Pan_troglodytes	-----	
Macaca_mulatta	-----	
Callithrix_jacchus	-----	
Rhinatrema_bivittatum	-----	
Xenopus_tropicalis	-----	
Latimeria_chalumnae	-----	
70.....80.....90.....100.....110.....120	

Pavo_muticus	-----MWPLVALCCWGGLSLPLSLALSEPQGRAAALASP-----ALAS	38
Pavo_cristatus	-----MWPLVALCCWGGLSLPLSLALSEPQGRAAALASP-----ALAS	38
Gallus_gallus	-----MWPLVALCCWGGLSLPLSLALSAPQGRAAALASP-----ALAS	38
Anas_platyrhynchos	-----MWPLVALCCWGGLSLPLSLALSAPQGRAAALASP-----ALAS	43
Chelonia_mydas	-----MWPLVALCCWGGLSLPLSLALSAPQGRAAALASP-----ALAS	
Mus_musculus	-----MWSRLAFCCWA-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Rattus_norvegicus	GGLSPCTPPGHRVPSAMWTRLAFCCWA-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	179
Bos_taurus	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Equus_caballus	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Canis_lupus_familiaris	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Homo_sapiens	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Pan_troglodytes	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Macaca_mulatta	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Callithrix_jacchus	-----MWRLAFCCWG-LALVSGWTFQQLSPSRNFSFRLFPETAPGA	42
Rhinatrema_bivittatum	-----MWLLFALCCCC--CCCSPLSGWSPGSSSLALQLA-----E	33
Xenopus_tropicalis	-----MLLWGSFCCCI--SLVCSWTFYSHQLPSYRSSSS--QIVQFT	38
Latimeria_chalumnae	-----MWRLTVYFCLP--LLAGCWTSFPLSRNRTFTPVRFPLSESG	40
130.....140.....150.....160.....170.....180	

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Pavo_muticus	PAPAPPLPDTTES-----KVEKLGRAFKRQVRRRLRARSGRLELVFLVDESSSVGPANFL	92
Pavo_cristatus	PAPAPPLPDTTES-----KVEKLGRAFKRQVRRRLRARSGRLELVFLVDESSSVGPANFL	92
Gallus_gallus	PAPAPPLPDTTES-----KVEKLGRAFKRQVRRRLRARSGRLELVFLVDESSSVGPANFL	92
Anas_platyrhynchos	AAAAAALPDTTGS-----RVERLGRAFKRQVRRRLRARSGRLELVFLVDESSSVGPANFA	97
Chelonia_mydas	-----	
Mus_musculus	LGRLAVPPASSEEE--AAGSKVERLGRAFRSRVRRRLRELSGSLELVFLVDESSSVGQTNFL	101
Rattus_norvegicus	LGRLAVPPRSGEEE--AVGSKVERLGRTRSRVRRRLRELSDRLELVFLVDESSSVGQTNFL	238
Bos_taurus	PGRLPEPPAPSEDAAAAESKVERLGOAFRRRVRRRLRELSERLELVFLVDESSSVGQANFL	102
Equus_caballus	PGRLPSPPAPGED--AAESKVERLGOAFRRRVRRRLRELSERLELVFLVDESSSVGQANFL	100
Canis_lupus_familiaris	PGRLSVQPAPAED--AAGRRVERLGOAFRRRVRRRLRELSGRLELVFLVDESSSVGQANFL	100
Homo_sapiens	PGSIPAPPAPGDE--AAGSRVERLGOAFRRRVRRRLRELSERLELVFLVDDSSSVGEVNFR	100
Pan_troglodytes	PGSIPAPPAPGDE--AAGSRVERLGOAFRRRVRRRLRELSERLELVFLVDDSSSVGEVNFR	100
Macaca_mulatta	PGSLPAPPAPGDE--AAGSRVERLGOAFRRRVRRRLRELSERLELVFLVDDSSSVGEVNFR	100
Callithrix_jacchus	PGSLPAPPAPGEE--AAGSRVERLGOAFRRRVRRRLRELSERLELVFLVDDSSSVGEVNFR	100
Rhinatrema_bivittatum	ARRSPPPPDSTEN-----KVEKLGOYFKRQVRRRLRERSGRLELVFLVDESSSVGPANFR	87
Xenopus_tropicalis	DSRKQQSSETTEN-----KVEKLGOYFKKNIRRLREKSLSLDLVFLVDESSSVGHSNFV	92
Latimeria_chalumnae	GRQLEAPEN-----KVEKLGOYFKRNVRLREKSSQLELVFLVDESSSVGHANFV	90
190.....200.....210.....220.....230.....240	

Pavo_muticus	SELRFVKKLLSDFPVVPAATRVAIVTFSSRSNVVPRVDYISRRRPQOHKCALLGREIPAI	152
Pavo_cristatus	SELRFVKKLLSDFPVVPAATRVAIVTFSSRSNVVPRVDYISRRRPQOHKCALLGREIPAI	152
Gallus_gallus	SELRFVKKLLSDFPVVPAATRVAIVTFSSRSNVVPRVDYISRRRPQOHKCALLGREIPAI	152
Anas_platyrhynchos	SELRFVKKLLSDFPVVPAATRVAIVTFSSRSNVAPRVDYISRRRPQOHKCALLGREIPGI	157
Chelonia_mydas	-----	
Mus_musculus	NELKFVRKLLSDFPVVSTATRVAIVTFSSKNNVVARVDYISTSRARQHKCALLSREIPAI	161
Rattus_norvegicus	NELKFVRKLLSDFPVVSTATRVAIVTFSSKNNVVARVDYISTSRARQHKCALLSREIPAI	298
Bos_taurus	SELKFVRKLLSDFPVVPTATRVAIVTFSSKNNVPRVDYISSRRARQHKCALLSREIPAI	162
Equus_caballus	SELKFVRKLLSDFPVVPTATRVAIVTFSSKNNVPRVDYISSRRARQHKCALLSREIPAI	160
Canis_lupus_familiaris	SELRFVRKLLSDFPVVPTATRVAIVTFSSKNNVPRVDYISHRRARQHKCALLRREIPAI	160
Homo_sapiens	SELMFVRKLLSDFPVVPTATRVAIVTFSSKNYVPRVDYISTRARQHKCALLLQEIPIAI	160
Pan_troglodytes	SELMFVRKLLSDFPVVPTATRVAIVTFSSKNYVPRVDYISTRARQHKCALLLQEIPIAI	160
Macaca_mulatta	SELMFVRKLLSDFPVVPTATRVAIVTFSSKNYVPRVDYISTRARQHKCALLLQEIPIAI	160
Callithrix_jacchus	SELMFVRKLLSDFPVVPTATRVAIVTFSSKNYVPRVDYISTRARQHKCALLLQEIPIAI	160
Rhinatrema_bivittatum	SELRFVKKLLSDFPVVPTATRVAIVTFSSKSHVLARVDYISSSRPROHKCALLGREIPAI	147
Xenopus_tropicalis	NELRFVKKLLSDFPVVPSATRVAIITFSSKTNVQTRVDYISSSEPHQHKCSLLNREIPAI	152
Latimeria_chalumnae	NELKFVKKLLSDFPVVPSATRVAIITFSSKNHVLPRVDYISAPQAHQHKCSLLAQEIPIAI	150
250.....260.....270.....280.....290.....300	

Pavo_muticus	AYRGGGTYTKGAFQQAQILRHARGNSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	212
Pavo_cristatus	AYRGGGTYTKGAFQQAQILRHARGNSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	212
Gallus_gallus	AYRGGGTYTKGAFQQAQILRHARGNSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	212
Anas_platyrhynchos	AYRGGGTYTKGAFQQAQILRHARGNSTKVIFLITDGYSNGGDPRIAASLREFGVEIFT	217
Chelonia_mydas	-----	
Mus_musculus	TYRGGGTYTKGAFQQAQILRHSRENSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	221
Rattus_norvegicus	TYRGGGTYTMGAFQQAQILRHSRENSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	358
Bos_taurus	TYRGGGTYTKGAFQQAQILRHSRENSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	222
Equus_caballus	TYRGGGTYTKGAFQQAQILRHSRENSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	220
Canis_lupus_familiaris	AYRGGGTYTKGAFQQAQILRHSRENSTKVIFLITDGYSNGGDPRIAASLRDFGVEIFT	220
Homo_sapiens	SYRGGGTYTKGAFQQAQILLHARENSTKVIFLITDGYSNGGDPRIAASLRDSGVEIFT	220
Pan_troglodytes	SYRGGGTYTKGAFQQAQILLHARENSTKVIFLITDGYSNGGDPRIAASLRDSGVEIFT	220
Macaca_mulatta	SYRGGGTYTKGAFQQAQILLHARENSTKVIFLITDGYSNGGDPRIAASLRDSGVEIFT	220
Callithrix_jacchus	SYRGGGTYTKGAFQQAQILLHARENSTKVIFLITDGYSNGGDPRIAASLRDSGVEIFT	220
Rhinatrema_bivittatum	TYKGGGTYTKGALQQAQILRHSRGNAIKVIFLITDGYSNGGDPRIAATILRDLGVEIFT	207
Xenopus_tropicalis	TYKGGGTFTKGAFQQAQILRYSRSNSTKVIFLITDGYSNGGDPRIAANLRDLGVEIFT	212
Latimeria_chalumnae	TYKGGGTYTKGAFQQAQILKHSRGNSTKVIFLITDGYSNGGDPRIAASLRDLGVEIFT	210
310.....320.....330.....340.....350.....360	

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Pavo_muticus      FGIWQGNIRELNDMASHPKEDHCYLLHSFTEFEALARRALHEDLPSSGSIQEDISHCSYL 272
Pavo_cristatus    FGIWQGNIRELNDMASHPKEDHCYLLHSFTEFEALARRALHEDLPSSGSIQEDISHCSYL 272
Gallus_gallus     FGIWQGNIRELNDMASHPKEDHCYLLHSFTEFEALARRALHEDLPSSGSIQEDISHCSYL 272
Anas_platyrhynchos FGIWQGNIRELNDMASHPKEDHCYLLHSFTEFEALARRALHEDLPSSGSIQEDISHCSYL 277
Chelonia_mydas    -----MSSHPKEEHCYLLHSFAEFEALARRALHEDLPSSGSIQEDLSYCSYL 47
Mus_musculus      FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQEDMARCSYL 281
Rattus_norvegicus FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQEDMAHCSYL 418
Bos_taurus        FGIWQGNIRELNDMASIPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQEDMSHCSYL 282
Equus_caballus    FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQEDMSHCSYL 280
Canis_lupus_familiaris FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQEDMSHCSYL 280
Homo_sapiens      FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQDDMVHCSYL 280
Pan_troglodytes   FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQDDMVHCSYL 280
Macaca_mulatta    FGIWQGNIRELNDMASAPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQDDMVHCSYL 280
Callithrix_jacchus FGIWQGNIRELNDMASTPKEEHCYLLHSFEEFEALARRALHEDLPSSGSIQDDMVHCSYL 280
Rhinatrema_bivittatum FGIWQGNIRELNDMASHPKEDHCYLLHSFAEFEALARRALHEDLPSSGSIQEDLSHCSYL 267
Xenopus_tropicalis VGIWQGNIRELNDMASHPKEDHCYLLHSFAEFEALARRALHEDLPSSGSIQEDISHCSYL 272
Latimeria_chalumnae FGIWQGNIRELNDMASHPKEDHCYLLHSFAEFEALARRALHEDLPSSGSIQEDISHCSYL 270
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      CEANENCCDIMASCKCGTHTGQFECICEKGYGKGLQHECTACPPGTYKPDSSPPGGISTC 332
Pavo_cristatus    CEANENCCDIMASCKCGTHTGQFECICEKGYGKGLQHECTACPPGTYKPDSSPPGGISTC 332
Gallus_gallus     CEANENCCDIMASCKCGTHTGQFECICEKGYGKGLQHECTACPPGTYKPDSSPPGGISTC 332
Anas_platyrhynchos CEANENCCDIMASCKCGTHTGQFECICEKGYGKGLQHECTACPPGTYKPDSSPPGGISTC 337
Chelonia_mydas    CEANENCCDIMASCKCGTHTGQFECICEKGYGKGLQHECTACPSGTYKPEGSPGGISTC 107
Mus_musculus      CEAGKDCCDRMASCKCGTHTGQFECICEKGYGKGLQHECTACPSGTYKPEASPPGGISTC 341
Rattus_norvegicus CEAGRDCDDRMASCKCGTHTGQFECICEKGYGKGLQYECTACPPGTYKPEASPPGGISTC 478
Bos_taurus        CEAGKDCCDMASCKCGTHTGQFECICEKGYGKGLQYECTACPSGTYKPEGSPGGISTC 342
Equus_caballus    CEAGKDCCDRMASCKCGTHTGQFECICEKGYGKGLQYECTACPSGTYKSEGSPGGISTC 340
Canis_lupus_familiaris CEAGKECCDRMASCKCGTHTGQFECVCEKGYGKGLQYECTACPSGTYKPEGSPGGISTC 340
Homo_sapiens      CDEGKDCCDRMGSCCKCGTHTGHFECICEKGYGKGLQYECTACPSGTYKPEGSPGGISSC 340
Pan_troglodytes   CDEGKDCCDRMASCKCGTHTGHFECICEKGYGKGLQYECTACPSGTYKPEGSPGGISSC 340
Macaca_mulatta    CDEGKDCCDRMASCKCGTHTGHFECICEKGYGKGLQYECTACPSGTYKPEGSPGGISSC 340
Callithrix_jacchus CDEGKDCCDMASCKCGTHTGHFECICEKGYGKGLQYECACPSGTYKPEGSPGGISTC 340
Rhinatrema_bivittatum CEAGTDCCDVMSCKCGTHTGQFECICEKGYGKGLQHECTACPSGTYKPEGSPGGVSTC 327
Xenopus_tropicalis CEAGKDCCDVMSCKCGTHTGQYECICEKGYGKGLQHECTACPPGTYKPEGTPGGASTC 332
Latimeria_chalumnae CEAGEDCCDVMSCKCGTHTGQYECICEKGYGKGLQHECTACPSGTYKPEGGPGGITTC 330
.....430.....440.....450.....460.....470.....480

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Pavo_muticus      ISCPDENHTSPPGSTSIEDCACQEGYRAAGQTCFVVHCPPELKPPENGYFVQNVCNFYFNA 392
Pavo_cristatus    ISCPDENHTSPPGSTSIEDCACQEGYRAAGQTCFVVHCPPELKPPENGYFVQNVCNFYFNA 392
Gallus_gallus     ISCPDENHTSPPGSTSIEDCACQEGYRAAGQTCFVVHCPPELKPPENGYFVQNVCNFYFNA 392
Anas_platyrhynchos ISCPDENHTSPPGSTSVEDCTCREGYRVVGQTCFVVHCPPELKPPENGYFVQNVCNFYFNA 397
Chelonia_mydas    ISCPDDNHTSPPGSTSIEDCVCKDGYRAAGQACELVHCPPELQPPENGYFQNVCNFYFNA 167
Mus_musculus      IPCPDVSHSTSPPGSTSPEDCVCREGYQSGQTCFVVHCPALKPPENGFFIQNTCKNHFNA 401
Rattus_norvegicus IPCPDENHTSPPGSTAPEDCVCREGYQSGQTCFVVHCPALKPPENGFFIQNTCKNHFNA 538
Bos_taurus        LPCPDENHTSPPGSTSPEDCVCKEGYQASGQTCVHVHCPALKPPENGYFIRNTCKNHFNA 402
Equus_caballus    LPCPDENHTSRPGSTSPEDCVCKGYRASGQTCFVVHCPALKPPENGYFQNTCKNHFNA 400
Canis_lupus_familiaris LPCPDENHTSPPGSTSPEDCVCKEGYRASGQTCFVVHCPALKPPENGYFQNTCKNHFNA 400
Homo_sapiens      IPCPDENHTSPPGSTSPEDCVCREGYRASGQTCFVVHCPALKPPENGYFQNTCKNHFNA 400
Pan_troglodytes   IPCPDENHTSPPGSTSPEDCVCREGYRASGQTCFVVHCPALKPPENGYFQNTCKNHFNA 400
Macaca_mulatta    IPCPDENHTSPPGSTSPEDCVCKEGYRASGQTCFVVHCPALKPPENGYFQNTCKNHFNA 400
Callithrix_jacchus IPCPDENHTSPPGSTSPEDCVCREGYRASGQTCFVVHCPALKPPENGYFQNTCKNHFNA 400
Rhinatrema_bivittatum IRCPDENHTSPPGSTSIEDCVCKAGHRTLGAACEVVHCPPELQAPENGYFQNTCKNHFNA 387
Xenopus_tropicalis ITCPDENHTSPPGSTSVDDCVCKQGYEVEGVSCKVVHCPPELPPENGYFVQNVCNFYFNA 392
Latimeria_chalumnae VQCPDQNHISPPGSTSIEDCICKQGYRVIGQACEVVHCPPELQPPENGYFQNVCNFYFNA 390
.....490.....500.....510.....520.....530.....540

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Pavo_muticus      ACGIRCKAGFDLVGSSIRLCQPNGQWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 452
Pavo_cristatus    ACGIRCKAGFDLVGSSIRLCQPNGQWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 452
Gallus_gallus     ACGIRCKAGFDLVGSSIRLCQPNGQWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 452
Anas_platyrhynchos ACGIRCKAGFDLVGSSIRLCQPNGQWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 457
Chelonia_mydas    ACGIRCKAGFDLVGSSIRLCQPNGQWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 227
Mus_musculus      ACGVRCRPGFDLVGSSIHLCQPNGLWSGSEATCRVRTCPHLRQPKHGHSICSTAEMSYNT 461
Rattus_norvegicus ACGVRCRPGFDLVGSSIHLCQPNGLWSGSEATCRVRTCPHLRQPKHGHSICSTAEMSYNT 598
Bos_taurus        ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPRLRQPKHGHSICSTAEMSYRT 462
Equus_caballus    ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPRLRQPKHGHSICSTAEMSYRT 460
Canis_lupus_familiaris ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPHLRQPKHGHSICSTAEMSYRT 460
Homo_sapiens      ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPHLRQPKHGHSICSTAEMSYRT 460
Pan_troglodytes   ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPHLRQPKHGHSICSTAEMSYRT 460
Macaca_mulatta    ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPHLRQPKHGHSICSTAEMSYRT 460
Callithrix_jacchus ACGVRCHPGFDLVGSSIFLCLPSGLWSSESSESCRVRTCPHLRQPKHGHSICSTAEMSYRT 460
Rhinatrema_bivittatum ACGIRCKTGFDLVGSSIRLCQPNGLWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 447
Xenopus_tropicalis ACGIRCKTGFDLVGSSIRLCQPNGLWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 452
Latimeria_chalumnae ACGIRCKTGFDLVGSSIRLCQPNGLWSGSEATCRVRTCPKLWAPENGHINCSTADISYKT 450
.....550.....560.....570.....580.....590.....600

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Pavo_muticus      ECFVTCNEGYKLEGNAKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 512
Pavo_cristatus    ECFVTCNEGYKLEGNAKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 512
Gallus_gallus     ECFVTCNEGYKLEGNAKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 512
Anas_platyrhynchos VCLLTTCNEGYEIOGNAKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 517
Chelonia_mydas    VCFVTCDEGYELEGNSKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 287
Mus_musculus      LCLVTCNEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 521
Rattus_norvegicus VCLVTCNEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 658
Bos_taurus        MCLVTCDEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 522
Equus_caballus    TCLVTCDEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 520
Canis_lupus_familiaris MCLVTCDDGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 520
Homo_sapiens      TCLVTCDEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 520
Pan_troglodytes   TCLVTCDEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 520
Macaca_mulatta    TCFVTCDEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 520
Callithrix_jacchus TCFVTCDEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 520
Rhinatrema_bivittatum ECVVTCHEGYQLEGSSKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 507
Xenopus_tropicalis MCIAYCNDGYVLEGSSKLTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 512
Latimeria_chalumnae VCQVTCNEGYRLEGSLTTCQGT SQWDSKEPKCEMRCPVFQKPAAGVTILPPKCGLEPAV 510
.....610.....620.....630.....640.....650.....660

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Pavo_muticus      SGTVCQLSCPGFILSGAREELRCISSGRWSANIQDALCKDIEAPQIQCPENIETETLEH 572
Pavo_cristatus    SGTVCQLSCPGFILSGAREELRCISSGRWSANIQDALCKDIEAPQIQCPENIETETLEH 572
Gallus_gallus     SGTVCQLSCPGFILSGAREELRCISSGRWSANIQDALCKDIEAPQIQCPENIETETLEH 572
Anas_platyrhynchos SGTVCQLSCPGFLLSGAREELRCISSGRWSANIQDALCKDIEAPQIQCPENIETETLEH 577
Chelonia_mydas    SGTVCQLSCPGFLLSGAREELRCISSGRWSANIQDALCKDIEAPQIQCPENIETETLEH 347
Mus_musculus      PGMTCQLSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 580
Rattus_norvegicus PGMTCQLSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 717
Bos_taurus        PGMTCQLSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 582
Equus_caballus    PGMTCQLSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 580
Canis_lupus_familiaris PGTICQLSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 580
Homo_sapiens      FGTICYVSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 580
Pan_troglodytes   FGTICYVSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 580
Macaca_mulatta    FGTICYVSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 580
Callithrix_jacchus FGTICYVSCRGYILSGVR-EVRCATSGKWSAKVQTAACKDVEAPQISCPNDIEAKTEGQ 579
Rhinatrema_bivittatum SGTLCRLSCHPGFILSGAREELRCISSGRWSANIQDALCKDIEAPQIQCPENIETETLEH 567
Xenopus_tropicalis YGYSCVHGCNKGFMILSGVKDKIKCVANGKWSDDIQAMCKDTEPPKIIICPEDIHVENAEH 572
Latimeria_chalumnae PGTICQLSCHHGYSLSGVNNEMQCMIAKWSANIQDALCKDIEAPQIQCPENIETETLEH 570
.....670.....680.....690.....700.....710.....720

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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:::* : * : *   *** : * ::. * . : * : * : * : * : * : * :
Pavo_muticus      QNSANISWQVPVAKDNSGDEVSVHVTPAFIPPYLLPIGEVAITYRAIDKSGNEASCTFSV 632
Pavo_cristatus    QNSANISWQVPVAKDNSGDEVSVHVTPAFIPPYLLPIGEVAITYRAIDKSGNEASCTFSV 632
Gallus_gallus     QNAANISWQVPVAEDNSGDEVSVHVTPAFIPPYLLPIGEVAITYRAVDKSGNEASCTFSV 632
Anas_platyrhynchos QNSANISWQIPIAEDNSGDEVSVHVTPAFIPPYLLPIGEVAITYTAVDKSGNEASCTFSV 637
Chelonia_mydas    HNSANISWQVPITKDNSGDEVSIHVTPAFVPPSLFPIGEVAITYTAVDKSDNQASCTFSV 407
Mus_musculus      QDSANVTWQVPTAKDNSGEKVSVHVHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFYI 640
Rattus_norvegicus QDSANVTWQVPTAKDNSGEKVSVHVHPAFTPPYLFPIGEVAITYTATDSSGNQASCTFYI 777
Bos_taurus        QDSANITWQIPTAKDNSGEKVSIVHHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHI 642
Equus_caballus    QDSANITWQIPTAKDNSGEKVSIVHHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHI 640
Canis_lupus_familiaris QDSANITWQIPTAKDNSGEKVSIVHHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHV 640
Homo_sapiens      QDSANVTWQIPTAKDNSGEKVSVHVHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHI 640
Pan_troglodytes   QDSANVTWQIPTAKDNSGEKVSVHVHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHI 640
Macaca_mulatta    QDSANVTWQIPTAKDNSGEKVSIVHHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHI 640
Callithrix_jacchus QDSANVTWQIPTAKDNSGEKVSIVHHPAFTPPYLFPIGDVAITYTATDSSGNQASCTFHI 639
Rhinatrema_bivittatum QNSANIHWELETPKDNSSEDEVSVQVSPAFIPPHFFPIGEVAITYTAMDKSGNQANCTFNI 627
Xenopus_tropicalis QNSALINWKVPEAVDNSGEEVSIQVSPAFLPPYVFPPIGEVSVITYTATDVSGNEASCTFNI 632
Latimeria_chalumnae QNSANIGWLVPITGKDNSGEEVLVQATPAVLSPHLFPIGDVTITYTATDQSGNRANCSFNI 630
.....730.....740.....750.....760.....770.....780

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:***:.* ** *****:.. .*: :***** : : : * : * : *
Pavo_muticus      KVIDAEPPVIDRCRSPPIQAVENE--YPATWEEPQFSDNSGAPLTIITRSHEPGDLFPKG 690
Pavo_cristatus    KVIDAEPPVIDRCRSPPIQAVENE--YPATWEEPQFSDNSGAPLTIITRSHEPGDLFPKG 690
Gallus_gallus     KVIDAEPPVIDRCRSPPIQAVENE--YPATWEEPQFSDNSGAPLTIITRSHEPGDLFPKG 690
Anas_platyrhynchos KVIDAEPPVIDRCRSPPIQAVEKE--YPATWEEPQFSDNSGAPLTIARSHAPGDLFPKG 695
Chelonia_mydas    KVIDVESPVVIDRCRSPPIHVSENE--YRATWEEPQFSDNSGAALTIITKSHSPGDLFLKG 465
Mus_musculus      KVIDVEPPVIDWCRSPPIQVVEKE--HPASWDEPQFSDNSGAELVITSSHTQGDLMFPHG 698
Rattus_norvegicus KVIDVEPPVIDWCRSPPIQVVEKE--HPASWDEPQFSDNSGAELVITSSHTQGDLMFPHG 835
Bos_taurus        KVIDVEPPSIDWCRSPPIQVSEKE--HAVTWDEPQFSDNSGAMLTITRSHTPGDLFPQG 700
Equus_caballus    KVIDVEPPSIDWCRSPPIQVSEKE--HAVTWDEPQFSDNSGAVLITRSHTPGDLFPHG 698
Canis_lupus_familiaris KVIDVEPPSIDWCRSPPMQVSEKE--HSATWDEPQFSDNSGAVLLITRSHTPGDLFPHG 698
Homo_sapiens      KVIDAEPPVIDWCRSPPPVQVSEKV--HAASWDEPQFSDNSGAELVITRSHTQGDLMFPQG 698
Pan_troglodytes   KVIDAEPPVIDWCRSPPPVQVSEKV--HAASWDEPQFSDNSGAELVITRSHTQGDLMFPQG 698
Macaca_mulatta    KVIDVEPPVIDWCRSPPIQVSEKV--YAASWDEPQFSDNSGAELVITRSHTQGDLMFPQG 698
Callithrix_jacchus KVIDVEPPVIDRCRSPPIQVSEKV--HAASWDEPQFSDNSGAELVITRSHTQGDLMFPQG 697
Rhinatrema_bivittatum KVIDVEPPVIDRCRSPPPVQTTENE--YSATWEEPEFSDNSGASLIIRKTHSSGDLFPQG 685
Xenopus_tropicalis RVIDVDPPVIDRCRSPPTIQVTGNEKFSASWEEPQFSDNSGLPLITQTHSPGDLFPVG 692
Latimeria_chalumnae QVIDVEPPVIDRCRSPPLQTTENE--HIVTWEIPQFSDNSGVPVMVEKTHSPGSVFPRG 688
.....790.....800.....810.....820.....830.....840

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.* * * * * * * * * : * : * : * : * : * : * : * : * : * : * : *
Pavo_muticus      ETTVQYIALDPSGNRRTCEIHIVKGSPEISFEPVNGNFTCTSDIEGVNCTLHCAEGYS 750
Pavo_cristatus    ETTVQYIALDPSGNRRTCEIHIVKGSPEISFEPVNGNFTCTSDIEGVNCTLHCAEGYS 750
Gallus_gallus     ETTVQYIALDPSGNRRTCEIHIVKGSPEISFKPVNGNFTCTSDIEGVNCTLHCAEGYS 750
Anas_platyrhynchos ETTVQYTAVDSSGNRRTCEIHIVKGSPEIIPFEPVNGDFICTSDEKGVNCTLRCAEGYS 755
Chelonia_mydas    ETTVQYTATDSSGNRRTCEIHIVKGSPEISFTPVHGFICIEDEAGVNCTLRCDMGYN 525
Mus_musculus      ETVVWYTATDPSGNRRTCDIHIVKGSPEVFPFVPVNGDFICAQDSAGVNCSTLCREGYD 758
Rattus_norvegicus ETVVWYTATDPSGNRRTCDIHIVKGSPEVFPFVPVNGDFICAQDSAGVNCSTLCREGYD 895
Bos_taurus        ETIVRYTATDPSGNRRTCDIHIVKGSPEVFPFVPVNGDFVCTQDSTGVNCTLSCLEGYD 760
Equus_caballus    ETVVRYTATDPSGNRRTCDIHIVKGSPEVFPFVPVNGDFVCTQDSTGVNCTLSCLEGYD 758
Canis_lupus_familiaris ETIVRYTATDPSGNRRTCDIHIVKGSPEVFPFVPVNGDFICTQDSAGVNCTLSCLEGYD 758
Homo_sapiens      ETIVQYTATDPSGNRRTCDIHIVKGSPEIIPFVPVNGDFICTPDNTGVNCTLTLCLEGYD 758
Pan_troglodytes   ETIVQYTATDPSGNRRTCDIHIVKGSPEIIPFVPVNGDFICTPDNTGVNCTLTLCLEGYD 758
Macaca_mulatta    ETIVQYTATDPSGNRRTCDIHIVKGSPEIIPFVPVNGDFICAQDSTGVNCTLTLCLEGYD 758
Callithrix_jacchus ETIVQYIATDPSGNRRTCDIHIVIRGSPCEIIPFVPVNGDFICAQDSTGVNCTLTLCLEGYD 757
Rhinatrema_bivittatum ETKVQYTATDLSGNRRTCELIIRGSPCEIILYTPVNGDFVCSKDKVGINCTLQCKEGYS 745
Xenopus_tropicalis RTVVQYTAIDPSGNKKTCDIYITIKGSPCEIIPFVPVNGELACLKDVGVNCTLVCKEGYA 752
Latimeria_chalumnae ETVVQYVATDPSGNSRTCKIHIIIRDKMCEIIPFSPHGEFSCTREEMGVNCTLYCKDGYG 748
.....850.....860.....870.....880.....890.....900

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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      .      . :      . : * . * .      . : * * * * : * : * * : * * : * * : *
Pavo_muticus      FSDGSSSENYCAYEDGVWKPPYSPEWPDCLNRFANHGFKSFEMLYKATRCDDNSLLNGF      810
Pavo_cristatus    FSDGSSSENYCAYEDGVWKPPYSPEWPDCLNRFANHGFKSFEMLYKATRCDDNSLLNGF      810
Gallus_gallus     FSEGSSSENYCAYEDGVWKPPYSPEWPDCLNRFANHGFKSFEMLYKATRCDDNSLLNGF      810
Anas_platyrhynchos FSEGSSENYCAYEDGVWKPPYSPEWPDCLNRFANHGFKSFEMLYKATRCDDNSLLNGF      815
Chelonia_mydas    FTAASTENYYCAYEDGIWKPPYSTEWPDCLNRFANHGFKSFEMLYKARRCDDNNLLKSF      585
Mus_musculus      FTEGSTTEKYYCAFEDGIWRPPYSTEWPDCAIKRFANHGFKSFEMLYKTTRCDDMDLFFKKF      818
Rattus_norvegicus FTEGSTTEKYYCAFEDGIWRPPYSTEWPDCAIKRFANHGFKSFEMLYKTTRCDDMDLFFKKF      955
Bos_taurus        FTEGSTDKYYCAYEDGIWKPPYSTEWPDCAIKRFANHGFKSFEMLYKATRCDDTDLLKKF      820
Equus_caballus    FTEGSTTEKYYCAYEDGIWKPPYSTEWPDCAIKRFANHGFKSFEMLYKATRCDDTDLLKKF      818
Canis_lupus_familiaris FTEGSTTEKYYCAYEDGIWNPPYSTEWPDCAIKRFANHGFKSFEMLYKATRCDDTDLLKKF      818
Homo_sapiens      FTEGSTDKYYCAYEDGVWKPTYTTTEWPDCAKKRFANHGFKSFEMFYKAARCDTDLMKKF      818
Pan_troglodytes   FTEGSTDKYYCAYEDGVWKPTYTTTEWPDCAKKRFANHGFKSFEMFYKAARCDTDLMKKF      818
Macaca_mulatta    FTEGSTDKYYCAYEDGVWKPTYTTTEWPDCAKKRFANHGFKSFEMFYKAARCDTDLMKKF      818
Callithrix_jacchus FTEGSTDKYHCAYEDGIWKPTYTTTEWPDCAKKRFANHGFKPFEMFYKAARCDTDLKKF      817
Rhinatrema_bivittatum YPEGLAGSYCYVEEGVWKPPHSTSWPDCLNRLANHGKYSFEMLYKATRCDDTNFLKSF      805
Xenopus_tropicalis LAEGSTONLYCAFRDGLWKPPKRWDPDCLNRFANHGFKSFEMLYKATRCDDNSLLKNF      812
Latimeria_chalumnae FTEEEPVQSYFCAHDGEWRPPFSAEWPDCSLIRLANHGFKSFEMLYKASRCDDINLLET      808
      .....910.....920.....930.....940.....950.....960

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      :      * . . : * : * * * * . *      : * : * : * :      * . * * * . * * * * * . * .
Pavo_muticus      SDAFQSALGEMVPSFCND---VDDIDCRLED-QTQKHCELYNYDYENGFAIGPAGWG---      863
Pavo_cristatus    SDAFQSALGEMVPSFCND---VDDIDCRLED-QTQKHCELYNYDYENGFAIGPAGWG---      863
Gallus_gallus     SDAFQSALGEMVPSFCND---VDDIDCRLED-QTQKHCELYNYDYENGFAIGPAGWG---      863
Anas_platyrhynchos SDAFQSALGEMVPSFCND---VDDIDCRLED-QTQKHCELYNYDYENGFAIGPAGWG---      868
Chelonia_mydas    AEAQSALGEMVPSFCND---VDDIDCRLED-LPLKHCELYNYDYENGFAIGPAGWG---      638
Mus_musculus      SAAFETTLGKMVPSFCND---ADDIDCRLED-LTKKYCIEYNYDYENGFAIGPAGWG---      871
Rattus_norvegicus SAAFETTLGKMVPSFCND---ADDIDCRLED-LTKKYCIEYNYDYENGFAIGPAGWG---      1008
Bos_taurus        SEAFETTLGKMVPSFCND---ADDIDCRLED-LTKKYCIEYNYDYENGFAIGPAGWG---      873
Equus_caballus    SEAFETTLGKMVPSFCND---ADDIDCRLED-LTKKYCIEYNYDYENGFAIGPAGWG---      871
Canis_lupus_familiaris SEAFETTLGKMVPSFCND---ADDIDCRLED-LTKKYCIEYNYDYENGFAIGPAGWG---      871
Homo_sapiens      SEAFETTLGKMVPSFCND---AEDIDCRLEENLTKKYCIEYNYDYENGFAIGPAGWG---      872
Pan_troglodytes   SEAFETTLGKMVPSFCND---AEDIDCRLEENLTKKYCIEYNYDYENGFAIGPAGWG---      872
Macaca_mulatta    SEAFETTLGKMVPSFCND---AEDIDCRLEENLTKKYCIEYNYDYENGFAIGPAGWG---      872
Callithrix_jacchus SEAFETTLGKMVPSFCND---AEDIDCRLEENLTKKYCIEYNYDYENGFAIGPAGWG---      871
Rhinatrema_bivittatum ADAFQNTLGLKMPVPSFCND---VDDVDCRLED-LPQKQCELYNYDYENGFAIGPAGWG---      858
Xenopus_tropicalis ADAFQSSSLGKMVPSFCND---ADDIECRLED-QYQRCCELYNYDYENGFAIGPAGWG---      865
Latimeria_chalumnae ATRFHNALGKLVPSFCSDDDGDDDDIECRVKG-LPRGQCELYNYDYENGFAIGPAGWGTSW      867
      .....970.....980.....990.....1000.....1010.....1020

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      * . * . * .      .      : :      * . * .      .      : * : : . * * * *
Pavo_muticus      -AANQLDYSYDD-FFDTVQEEGPSKHLSAFAKAAPTRVKRHKHLNVPMTDHKIKLIFNIT      921
Pavo_cristatus    -AANQLDYSYDD-FFDTVQEEGPSKHLSAFAKAAPTRVKRHKHLNVPMTDHKIKLIFNIT      921
Gallus_gallus     -AANQLDYSYDD-FFDTVQEEGLSKHLSAFAKAAPTRVKRHKHLNVPMTDHKIKLIFNIT      921
Anas_platyrhynchos -AANQLGYSYDD-FIDTVQEEEDLSKHLASAQAAPTRVKRHKHLNVPMTDHKIKLIFNIT      926
Chelonia_mydas    -AANHLDYSYDD-FLDIVQEEQLQTPLSGSVKTAPSRVKRHKHLNIPMTDHKIKLIFNIT      696
Mus_musculus      -AGNRLDYSYDH-FLDVVQETP-----IDVGKARSSRIKR-----TVPLSDPKIQLIFNIT      920
Rattus_norvegicus -AGNRLDYSYDH-FLDVVQETP-----ADVGTKRSSRIKR-----TVPLSDPKIQLIFNIT      1057
Bos_taurus        -AANRLDYSYGD-FQDTVRETP-----TGAGKARSSRIKR-----SAPLSDHKIRLIFNIT      922
Equus_caballus    -TANRLDYSYDD-FLDAVRETP-----TGAGKARSSRIKR-----NAPLSDHKIKLIFNIT      920
Canis_lupus_familiaris -AANRLDYSYDD-FLDSVQETP-----TGAGKARSSRIKR-----NAPLSDHKIKLIFNIT      920
Homo_sapiens      -AANRLDYSYDD-FLDTVQETA-----TSIGNAKSSRIKR-----SAPLSDYKIKLIFNIT      921
Pan_troglodytes   -AANRLDYSYDD-FLDTVQETA-----TSIGNARSSRIKR-----SAPLSDYKIKLIFNIT      921
Macaca_mulatta    -AANRLDYSYDD-FLDTMQETP-----TSIGNARSSRIKR-----SAPLSDYKIKLIFNIT      921
Callithrix_jacchus -SANRLDYSYDD-FLDAVRETP-----TSISNARSSRIKR-----SSPLSDYKIKLIFNIT      920
Rhinatrema_bivittatum -AVNRLDYSYDD-FLDVIQEEQIQKHLSSLPKAAPLRVKRHKHRLNMPMTDQKIKLIFNIT      916
Xenopus_tropicalis -AANKLDYSYDEDFDATETEDAEPKPLSDSPHTAPLRVKRHKHRLNAGAADQKVVFIFNIT      924
Latimeria_chalumnae GMQNGLDYPYDDPKVMPKEQLVIAESTGASPKTAPLRVKRHKHVNIPMTDQKIQVIFNIT      927
      .....1030.....1040.....1050.....1060.....1070.....1080

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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* :****.***** * ** **: ****:***: * : *::*:*** : ** :***
Pavo_muticus      ASVPLPDERNDTLELENQKRLKLTLETITNRLNRTLNLKEPMYSFQFASSELIVADSNLSLET 981
Pavo_cristatus    ASVPLPDERNDTLELENQKRLKLTLETITNRLNRTLNLKEPMYSFQFASSELIVADSNLSLET 981
Gallus_gallus     ASVPLPDERNDTLELENQKRLKLTLETITNRLNRTLNLKEPMYSFQFASSELIVADSNLSLET 981
Anas_platyrhynchos ASVPLPDERNDTLELENQKRLKLTLETITNRLNRTLNLKEPMYSFQFASSELIVADSNLSLET 986
Chelonia_mydas    ASVPLPDERNDTLELENQKRLKLTLETITNRLNRTLNLKEPMYSFQFASSELIVADSNLSLET 756
Mus_musculus      ASVPLPEERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 980
Rattus_norvegicus ASVPLPEERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 1117
Bos_taurus        ASVPLPDERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 982
Equus_caballus    ASVPLPEERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 980
Canis_lupus_familiaris ASVPLPDERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 980
Homo_sapiens      ASVPLPDERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 981
Pan_troglodytes   ASVPLPDERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 981
Macaca_mulatta    ASVPLPDERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 981
Callithrix_jacchus ASVPLPDERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 980
Rhinatrema_bivittatum A-VPLPEERNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 975
Xenopus_tropicalis ASVPLPKQRNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 984
Latimeria_chalumnae ASIPLPDSRNDTLELENQKRLKLTLETITNRLKSTLNKEPMYSFQFASSELIVADSNLSLET 987
.....1090.....1100.....1110.....1120.....1130.....1140

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. * *****:***** ** *.*** .**** * ****.***:*** **. *
Pavo_muticus      EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1041
Pavo_cristatus    EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1041
Gallus_gallus     EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1041
Anas_platyrhynchos EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1046
Chelonia_mydas    EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 816
Mus_musculus      EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1040
Rattus_norvegicus EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1177
Bos_taurus        EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1042
Equus_caballus    EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1040
Canis_lupus_familiaris EKAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1040
Homo_sapiens      KKASPFRCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1041
Pan_troglodytes   KKASPFRCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1041
Macaca_mulatta    KKASPFRCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1041
Callithrix_jacchus RKASPFRCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1040
Rhinatrema_bivittatum ERAFLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1035
Xenopus_tropicalis GKAFLLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1044
Latimeria_chalumnae EEASLFCRPGSVLKGRCVNCPLGTYYSLEHHACESCWTGSGYQDEEGQLECKSCPSGSGSYT 1047
.....1150.....1160.....1170.....1180.....1190.....1200

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****: *::*:*** : ** :*** :*** :*** :*** :*** :*** :*** :*** :***
Pavo_muticus      EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1101
Pavo_cristatus    EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1101
Gallus_gallus     EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1101
Anas_platyrhynchos EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1106
Chelonia_mydas    EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 876
Mus_musculus      EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1100
Rattus_norvegicus EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1237
Bos_taurus        EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1102
Equus_caballus    EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1100
Canis_lupus_familiaris EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1100
Homo_sapiens      EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1101
Pan_troglodytes   EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1101
Macaca_mulatta    EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1101
Callithrix_jacchus EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1100
Rhinatrema_bivittatum EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1095
Xenopus_tropicalis EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1104
Latimeria_chalumnae EYLHSRSISECKAQCKQGTYSNGLTCTCPLGTYQPAFGSRNCISCPEDTSTVKRGAV 1107
.....1210.....1220.....1230.....1240.....1250.....1260

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      .      ***.*      *::***:**      ***::***:*****.      **::**:******.      *: ** :**
Pavo_muticus      DVSACGVPCPAGEFSRTGLTPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGARSITDCS      1161
Pavo_cristatus    DVSACGVPCPAGEFSRTGLTPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGARSITDCS      1161
Gallus_gallus     DVSACGVPCPAGEFSRTGLTPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGARSITDCS      1161
Anas_platyrhynchos      DDSACGVPCPAGEFSRTGLTPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGARSITDCS      1166
Chelonia_mydas     DISACGVPCAAGEFSRSGLMPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGARSITDCS      936
Mus_musculus      DISACGVPCPVGEFSRSGLTPCYPCPRDYYQPNAGKSFCLACPFYGTITITGATSITDCS      1160
Rattus_norvegicus  DISACGVPCPVGEFSRSGLTPCYPCPRDYYQPNAGKSFCLACPFYGTITITGATSITDCS      1297
Bos_taurus        DISACGVPCPVGEFSRSGLMPCYPCPDYYQPNPGKSFCLSCPFGYTTTTITGARSITDCS      1162
Equus_caballus    DIAACGVPCPVGEFSRSGLMPCYPCPDYYQPNPGKSFCLSCPFGYTTTTITGARSITDCS      1160
Canis_lupus_familiaris      DISACGVPCPVGEFSRSGLMPCHPCKDYYQDPDGKSFCLSCPFGYTTATSGTRISITDCS      1160
Homo_sapiens      NISACGVPCPEGKFSRSGLMPCHPCKDYYQPNAGKAFCLACPFYGTTPFAGSRSITECS      1161
Pan_troglodytes   NISACGVPCPEGKFSRSGLMPCHPCKDYYQPNAGKAFCLACPFYGTTPFAGSRSITECS      1161
Macaca_mulatta    NISSCGVPCPEGKFSRSGLMPCHPCKDYYQPDAGKAFCLACPFYGTTPFAGSRSITECS      1161
Callithrix_jacchus      NISACGVPCPEGKFSRSGLMPCHPCKDYYQPHAGKAFCLACPFYGTTPFAGSRSITECS      1160
Rhinatrema_bivittatum      SISECGVACPAGEFSRSGLVPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGARSITDCS      1155
Xenopus_tropicalis      DKSECGVPCPAGEFSRTGLVPCYPCPRDYYQPEPGKSYCLSCPFGYTTTTITGARSITDCS      1164
Latimeria_chalumnae      EALECGVPCPAGEFSRSGLIPCYPCPRDYYQDPDGKSYCLSCPFGYTTTTITGATSITDCS      1167
.....1270.....1280.....1290.....1300.....1310.....1320

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      ***::***:*****.      :      :      :      *****::***:***      *.*      :*      *.*      *
Pavo_muticus      SFGSTFSAAEESVMMIPASPENISKQYKVSSQVFHECFLEPCHNNGTCKQLGSGYICICP      1221
Pavo_cristatus    SFGSTFSAAEESVMMIPASPENISKQYKVSSQVFHECFLEPCHNNGTCKQLGSGYICICP      1221
Gallus_gallus     SFGSTFSAAEESVMMIPASPENISKQYKVSSQVFHECFLEPCHNNGTCKQLGSGYICICP      1221
Anas_platyrhynchos      SFGSTFSAAEESVMMIPASPENISKQYKVSSQVFHECFLEPCRNSTCKQLGTGYICICP      1226
Chelonia_mydas     SFGSTFTAEEES-VMVPVSPENISKQYKVSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      995
Mus_musculus      SFSSTFSAAEES-IVPLVAPGHSQNKYEVSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1219
Rattus_norvegicus  SFSSTFSAAEES-IVPLAAPGPTQNKYEVSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1356
Bos_taurus        SFSSTFSAAEES-AVLLASPGHVKKKYEVSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1221
Equus_caballus    SFSSTFSAAEES-IVPLASTGNIKKKYEVSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1219
Canis_lupus_familiaris      SFSSTFSAAEES-VVPRASPGHIKKKYETSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1219
Homo_sapiens      SFSSTFSAAEES-VVPPASLGHIIKKRHEISSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1220
Pan_troglodytes   SFSSTFSAAEES-VVPPASLGHIIKKRHEISSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1220
Macaca_mulatta    SFSSTFSAAEES-VVPPASLGHIIKKRHEISSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1220
Callithrix_jacchus      SFSSTFSAAEEG-VVAPASFGHIKKRPEISSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1219
Rhinatrema_bivittatum      SFGSSFSAAEES-VRIPVAPENIROQYEVSSQVFHECFLEPCHNNGTCKQLGSGYICMCP      1214
Xenopus_tropicalis      SFGSSFSAAEES-VMIPISPENVNSKYKVSSQVFNECLLNPCQNSGTCTQIGSGYICMCP      1223
Latimeria_chalumnae      SFGSTYAAEES-LVIPVSPENISKKYKISSQVFHECFVNPQNNGTCKEIGTGIFYCICQ      1226
.....1330.....1340.....1350.....1360.....1370.....1380

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      *::*      :*      :***      .      **      *..*      *      :      :      *      *      :*      :*      :*      :*      :*      :*
Pavo_muticus      IGYTGLKCETEMDECKSSPCHNNGVCKDGIGTFVCHCKPGYSGLLCEKDINECNSSPCLN      1281
Pavo_cristatus    IGYTGLKCETEMDECKSSPCHNNGVCKDGIGTFVCHCKPGYSGLLCEKDINECNSSPCLN      1281
Gallus_gallus     IGYTGLKCETEVDECKSSPCHNNGVCKDGIGTFVCHCKPGYSGLLCEKDINECNSSPCLN      1281
Anas_platyrhynchos      LGYTGLKCETEMDECKSSPCQNNGLCKDGVGTFFVCHCKPGYSGLLCEEDINECNSSPCLN      1286
Chelonia_mydas     PGYTGLKCEKEIDECKSTPCLNNGVCKDGIGVFICQCPGYTGLLCEEDINECNSSPCLN      1055
Mus_musculus      PGYTGLKCETDIDECSPLPCLNNGGICRDQVGGFTCECSLGYSGQICEENINECNSSPCLN      1279
Rattus_norvegicus  PGYTGLKCETDIDECSPLPCLNNGGICRDQVGGFTCECSLGYSGQICEENINECNSSPCLN      1416
Bos_taurus        PGYTGLKCEIDIDECSPLPCLNNGGICKDRVGEFICECPSGYTGQICEENINECNSSPCLN      1281
Equus_caballus    RGYTGLKCEIDIDECSPLPCLNNGGICKDRVGEFICECPSGYTGQICEENINECNSSPCLN      1279
Canis_lupus_familiaris      SGYTGLKCEIDIDECSPLPCLNNGGICKDLVGEFICECPSGYTGQICEENINECNSSPCLN      1279
Homo_sapiens      LGYTGLKCETDIDECSPLPCLNNGVCKDLVGEFICECPSGYTGQICEENINECNSSPCLN      1280
Pan_troglodytes   LGYTGLKCETDIDECSPLPCLNNGVCKDLVGEFICECPSGYTGQICEENINECNSSPCLN      1280
Macaca_mulatta    LGYTGLKCEIDIDECSPLPCLNNGVCKDLVGEFICECPSGYTGQICEENINECNSSPCLN      1280
Callithrix_jacchus      LGYTGLKCEIDIDECSPLPCLNNGGICKDLVGEFICECPSGYTGQICEENINECNSSPCLN      1279
Rhinatrema_bivittatum      PGYKGSKECETDIDECKSLPCQNNGLCKDGVGTFFVCHCKPGYSGLLCEEDINECNSSPCLN      1274
Xenopus_tropicalis      KGYTGAKCENEINECNSSIPCRNNGICIDRVGEFDCQCLSGFSGTLCEENINECNSSPCLN      1283
Latimeria_chalumnae      SGFTGSNCEVDIDECSGPCQNNALCIDGIGKFAQCHPGYTGLLCEENINECNSSPCLN      1286
.....1390.....1400.....1410.....1420.....1430.....1440

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      . * : .: * . *: * : ** : : ** . **** .:*.: * * * *: *
Pavo_muticus      GGHCVDDKNGYHCTCAKGFTGAHCESEVNECLSNPCLNRAVCEDRVGGFSCCKCLPGFTGV 1341
Pavo_cristatus    GGHCVDDKNGYHCTCAKGFTGAHCESEVNECLSNPCLNRAVCEDRVGGFSCCKCLPGFTGV 1341
Gallus_gallus      GGHCVDERNGYHCTCAKGFTGAHCESEVNECLSNPCLNRAVCEDRVGGFSCCKCLPGFTGV 1341
Anas_platyrhynchos GARCVDKNGYHCTCAKGFTGAHCESEVNECLSNPCLNRAICEDRVGSFYCKCLPGFTGV 1346
Chelonia_mydas     GALCVDGINAYHCTCAEGFTGTRCETEVNECLSNPCLNKGICEDRLRSFHCKCLPGFTGV 1115
Mus_musculus       KGCTCDGLASYRCTCVKGYMGVHCETDVNECQSSPCLNNAVCKDQVGGFSCCKCPPGFLGT 1339
Rattus_norvegicus  KGCTCDGLASYRCTCVSGYVGVCETDVNECQSSPCLNNAVCKDQVGGFSCCKCPPGFLGT 1476
Bos_taurus         KGTCVDGLAGYHCTCVKGYMGLHCETEVNECQSSPCLNNAVCEQDLGGFLCKCPPGFLGT 1341
Equus_caballus     KGTCIDGLAGYRCTCVKGYAGLHCETEVNECQSSPCLNNAVCEQDVGGFLCKCPPGFLGT 1339
Canis_lupus_familiaris KGTCIDGLAGYHCTCVKGYTGLHCETEVNECQSSPCLNNAVCEQDVGGFLCKCPPGFLGT 1339
Homo_sapiens       KGICVDGVAGYRCTCVKGFVGLHCETEVNECQSNPCLNNAVCEQDVGGFLCKCPPGFLGT 1340
Pan_troglodytes    KGICVDGVAGYRCTCVKGFVGLHCETEVNECQSNPCLNNAVCEQDVGGFLCKCPPGFLGT 1340
Macaca_mulatta     KGICVDGVAGYRCTCVKGYVGLHCETEVNECQSNPCLNNAVCEQDVGGFLCKCPPGFLGT 1340
Callithrix_jacchus KGICVDGVAGYHRCVKGYVGLHCEAEVNECLPNPCLNNAVCEQDVGGFLCKCPPGFLGT 1339
Rhinatrema_bivittatum KGTCVNGIDAYHCICANGFTGIHCETEANECLSDPCLNRGVCEQDKGGFQCLCPSGFTGF 1334
Xenopus_tropicalis EAICIDGINAFYCRCANGFLGPRCEIEIDECLSRPCLNNGVCDLKGAFQCLCPAGYTGK 1343
Latimeria_chalumnae GGMCVDDGINSYNCNATGFIGTHCEIDFDECLSNPCLNSGVCKNLVGEFEFCVPLGFSGN 1346
      .....1450.....1460.....1470.....1480.....1490.....1500

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      * :;:* * * * * * * . :*** * *: * * * :;:* * * * *
Pavo_muticus      LCERNIDECLSRPCRNGATCRDGINSFRCCLVGTGYTGLNCEVNINDCASSPCLNHATCVD 1401
Pavo_cristatus    LCERNIDECLSRPCRNGATCRDGINSFRCCLVGTGYTGLNCEVNINDCASSPCLNHATCVD 1401
Gallus_gallus      LCERNIDECLSRPCRNGATCRDGINSFRCCLVGTGYTGPNCCEVNINDCASSPCLNHATCVD 1401
Anas_platyrhynchos LCERNIDECLSRPCRNGATCRDGINSFRCCLVGTGYTGPNCCEVNINDCASSPCLNHATCVD 1406
Chelonia_mydas     LCEKNIDECLSRPCKNGAKCKDGINNFRCCVGTGYTGLHCEVNINECEPNPCLNQADCVD 1175
Mus_musculus       RCEKNVDECLSQPCQNGATCKDGANSFRCQCPAGFTGTHCELNINECQSNPCRNOATCVD 1399
Rattus_norvegicus  RCEKNVDECLSQPCQNGATCKDGANSFRCQCPAGFTGPHCELNINECQSNPCRNOATCVD 1536
Bos_taurus         RCDINMDECLSQPCQNGATCKDGANSFRCQCAAGFTGTHCELNINECQSNPCRNOATCVD 1401
Equus_caballus     RCEKNVDECLSQPCRNGATCKDGANSFRCQCAAGFTGPRCELNINECQSNPCRNOATCVD 1399
Canis_lupus_familiaris RCEKNLDECLSQPCQNGATCKDGANSFRCQCAAGFTGPHCEVNINECQSNPCRNOATCVD 1399
Homo_sapiens       RCGKNVDECLSQPCQNGATCKDGANSFRCCLCAAGFTGSHCELNINECQSNPCRNOATCVD 1400
Pan_troglodytes    RCGKNVDECLSQPCQNGATCKDGANSFRCCLCAAGFTGSHCELNINECQSNPCRNOATCVD 1400
Macaca_mulatta     RCGKNVDECLSRPCKNGATCKDGANSFRCCLCAAGFTGSHCELNINECQSNPCRNOATCVD 1400
Callithrix_jacchus RCGKNVDECLSQPCQNGATCKDGVNSFRCHCVPGFTGSHCELNINECQSNPCRNOATCVD 1399
Rhinatrema_bivittatum LCEKNIDECHSRPCKNGARCIDDIDSFRCCTTGYSGVSCENINECESNPCLNQATCVD 1394
Xenopus_tropicalis VCEKDIIDECLSGPCKNGASCTDGINSFRCQCPGFTGQVCEINVDVSNPCLNNATCVD 1403
Latimeria_chalumnae KCEMNINECLSQPCLNGATCTDGTNSFRCQCAAGYMGQICETDINECESNPCLNFQATCVD 1406
      .....1510.....1520.....1530.....1540.....1550.....1560

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      *:;* * * * *:;* :***
Pavo_muticus      ALNSYVCKCPPGFTGSRCEQSSGFNLDFEVSGIYGVMVDGVLPSLGDITCTFWMKST 1461
Pavo_cristatus    ALNSYVCKCPPGFTGSRCEQSSGFNLDFEVSGIYGVMVDGVLPSLGDITCTFWMKST 1461
Gallus_gallus      ALNSYVCKCPPGFTGSKCETEQSSGFNLDFEVSGIYGVMVDGILPSLGDITCAFWMKST 1461
Anas_platyrhynchos ALNSYVCKCPPGFTGSRCEQSSGFNLDFEVSGIYGVMVDGVLPSLGDITCTFWMKST 1466
Chelonia_mydas     ALNSYVCKCPPGFTGSRCEQSSGFNLDFEVSGIYGVMVDNIFPSLGDITCAFWMKST 1235
Mus_musculus       ELNSYSCKCQPGFSGHRCETEQPSGFNLDFEVSGIYGVMVDGVLPTLHAITCAFWMKSS 1459
Rattus_norvegicus  ELNSYSCKCRPGFSGRRCEQPSGFNLDFEVSGIYGVMVDGVLPTLHAITCAFWMKSS 1596
Bos_taurus         ELNAYSCKCQPGFSGSRCEQSSAGFNLDFFVSGIYGIMLDGVLPTLHAITCTFWMKSS 1461
Equus_caballus     ELNSYSCKCRPGFSGSRCEQSTGFNLDFEVSGIYGVMVDGVLPSLRAVITCTFWMKSS 1459
Canis_lupus_familiaris ELNSYSCKCQPGFSGSRCEQDQSSGFNLDFEVSGTYGYVMVDGVLPSLWAITCTFWMKSS 1459
Homo_sapiens       ELNSYSCKCQPGFSGKRCETEQSTGFNLDFEVSGIYGVMVDGMLPSLHALTCTFWMKSS 1460
Pan_troglodytes    ELNSYSCKCQPGFSGKRCETEQSTGFNLDFEVSGIYGVMVDGVLPSLHALTCTFWMKSS 1460
Macaca_mulatta     ELNSYSCKCQPGFSGNRCETEQSIGFNLDFFVSGIYGVMVDGVLPSLHALTCTFWMKSS 1460
Callithrix_jacchus ELNSYSCKCQPGFSGNRCETEQSTGFNLDFEVSGIYGVMVDGVLPSLHAITCAFWMKSS 1459
Rhinatrema_bivittatum ALDSYICKCAPGFTGRRCEQSSGFNLDFEVSGIYGVMVDNVLPSLSAISCAFWMRSF 1454
Xenopus_tropicalis GLNSYICKCQPGYSGIRCETEOPFGFNLDFFVSGIYGVMVDNVMPTLSAITCAFWMRSF 1463
Latimeria_chalumnae ALNSYNCKCAPGYKGERCETG----- 1427
      .....1570.....1580.....1590.....1600.....1610.....1620

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Pavo_muticus	DTTNYGTPIISYAVENGSDNAFLLLTDYNGWVLYVNGKERITDCPSVNDGNWHHIAVTWTCM	1521
Pavo_cristatus	DTTNYGTPIISYAVENGSDNAFLLLTDYNGWVLYVNGKERITDCPSVNDGNWHHIAVTWTCM	1521
Gallus_gallus	DTTNYGTPIISYAVENGSDNAFLLLTDYNGWVLYVNGKERITDCPSVNDGNWHHIAVTWTCM	1521
Anas_platyrhynchos	DTTNYGTPIISYAVENGSDNAFLLLTDYNGWVLYVNGKERITDCPAVNDGNWHHIAVTWTCM	1526
Chelonia_mydas	DTTNYGTPIISYAVENGSDNSFLLTDYNGWVLYVNGKERITDCPSVNDGNWHHIAVTWTCM	1295
Mus_musculus	DVINYGTPIISYALEDDKNTFLLTDYNGWVLYVNGKERITNCPSVNDGIWHHIAITWTST	1519
Rattus_norvegicus	DVINYGTPIISYALEGNKNTFLLTDYNGWVLYVNGKERITNCPSVNDGIWHHIAITWTST	1656
Bos_taurus	DDINYGTPIISYALENGSDNTFLLTDYNGWVLYVNGKERITDCPSVNDGNWHHIAITWTST	1521
Equus_caballus	DTTNYGTPIISYALEKGSNTFLLTDYNGWVLYVNGKERITDCPAVNDGSHWHHIAITWTSA	1519
Canis_lupus_familiaris	DINNYGTPIISYALENGSDNTFLLTDYNGWVLYVNGKERITDCPSVNDGSHWHHIAITWTST	1519
Homo_sapiens	DDMNYGTPIISYAVDNGSDNTLLLLTDYNGWVLYVNGKERITNCPSVNDGRWHHIAITWTSA	1520
Pan_troglodytes	DDMNYGTPIISYAVDNGSDNTLLLLTDYNGWVLYVNGKERITNCPSVNDGRWHHIAITWTSA	1520
Macaca_mulatta	DDMNYGTPIISYAVDNGSDNTLLLLTDYNGWVLYVNGKERITNCPSVNDGRWHHIAITWTSA	1520
Callithrix_jacchus	DEMNYGTPIISYAVENGSDNTLLLLTDYNGWVLYVNGKERITNCPSVNDGRWHHIAITWTSA	1519
Rhinatrema_bivittatum	DTTNYGTPIISYAVENGSDNAFLLLTDYNGWVLYVNGKERITDCPSVNDGKWHHIAITWTST	1514
Xenopus_tropicalis	DTTNYGTPIISYALDNGSDNAFLLLTDYNGWVLYVNGKERITDCPSVNDGKWHHIAITWTST	1523
Latimeria_chalumnae	-----	1427
1630.....1640.....1650.....1660.....1670.....1680	

Pavo_muticus	DGAWRVYIDGKLSDGGSGLSVSGSKIPGGGALVLGQEQDKGEGFNPAESFVGSISQLNIW	1581
Pavo_cristatus	DGAWRVYIDGKLSDGGSGLSVSGSKIPGGGALVLGQEQDKGEGFNPAESFVGSISQLNIW	1581
Gallus_gallus	DGAWRVYIDGKLSDGGSGLSVSGSKIPGGGALVLGQEQDKGEGFNPAESFVGSISQLNIW	1581
Anas_platyrhynchos	DGAWRVYIDGKLSDGGTGLSVGLKIPGGGALVLGQEQDKGEGFNPAESFVGSISQLNIW	1586
Chelonia_mydas	NGAWNVIIDGKLSDGGSGLSVSGSKIPGGGALVLGQEQDKGEGFNPAESFVGSISQLNIW	1355
Mus_musculus	GGAWRVYIDGKLSDGGTGLSIGKAIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1579
Rattus_norvegicus	GGAWRVYIDGKLSDGGTGLSVGKAIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1716
Bos_taurus	GGAWKVYIDGNLSDGGMGLSIGSPIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1581
Equus_caballus	DGAWKVYIDGKLSDGGVGLSVGSAIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1579
Canis_lupus_familiaris	DGAWKVYIDGKLSDGGGLSVGSAIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1579
Homo_sapiens	NGIWKVYIDGKLSDGGAGLSVGLPIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1580
Pan_troglodytes	NGIWKVYIDGKLSDGGAGLSVGLPIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1580
Macaca_mulatta	NGVWKVYIDGKLSDGGAGLSVGLPIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1580
Callithrix_jacchus	NGVWKVYIDGKLSDGGAGLSVGLAIPGGGALVLGQEQDKKGEFNPAPESFVGSISQLNLW	1579
Rhinatrema_bivittatum	DGAWKVYIDGKLSDGGTGLSVDTISIPGGGVVLVAQDQDQGEFNPAPESFVGSISQVNIW	1574
Xenopus_tropicalis	DGSWKVYIDGKQSDGGKGLSVGESIPGGGALVLAQEQDQGEFNPAPESFVGSISQLNIW	1583
Latimeria_chalumnae	-----	1427
1690.....1700.....1710.....1720.....1730.....1740	

Pavo_muticus	DRVLSPPQVKSLATSCPEELQKGNVLAWPDLPLGVVGRVKIDYKSIFCADCPSLQGSVPH	1641
Pavo_cristatus	DRVLSPPQVKSLATSCPEELQKGNVLAWPDLPLGVVGRVKIDYKSIFCADCPSLQGSVPH	1641
Gallus_gallus	DRVLSPPQVKSLATSCPEELQKGNVLAWPDLPLGVVGRVKIDYKSIFCADCPSLQGSVPH	1641
Anas_platyrhynchos	DHVLSPQQVKSLATSCPEELQKGNVLAWPDLPLGVVGRVKIDYKSIFCADCPSLQGSVPH	1646
Chelonia_mydas	DRVLSPPQVKSLATSCPEELRKGNVLAWPDLPLGVVGRVKIDYKSIFCADCPSLQGSVPH	1415
Mus_musculus	DYVLSPPQVKLLASSCPEELSRGNVLAWPDLPLSGITGKVKVDSSSMFCSDCPSLEGSVPH	1639
Rattus_norvegicus	DYVLSPPQVKSLASSCPEELSRGNVLAWPDLFVSGITGKVKVDSSSIFCSDCPSLEGSVPH	1776
Bos_taurus	DYVLSPPQVKSLATSCPEELSKGNVLAWPDLPLSGIVGRVKINPKSIFCSDCPSLEGSVPH	1641
Equus_caballus	DYVLSPPQVKSLATSCPEELNKGNVLAWPDLPLSGIVGKVKIDSKSIFCSDCPPLEGSVPH	1639
Canis_lupus_familiaris	DYVLSPPQVKSLATSCPEELKKGNVLAWPDLPLSGIMGKVKINPKSIFCSDCPPLEGLIPH	1639
Homo_sapiens	DYVLSPPQVKSLATSCPEELSKGNVLAWPDLPLSGIVGKVKIDSKSIFCSDCPRLGGSVPH	1640
Pan_troglodytes	DYVLSPPQVKSLATSCPEELSKGNVLAWPDLPLSGIVGKVKIDSKSIFCSDCPRLGGSVPH	1640
Macaca_mulatta	DYVLSPPQVKSLATSCPEELSRGNVLAWPDLPLSGIMGKVKIDSKSIFCSDCPRLGGSVPH	1640
Callithrix_jacchus	DYVLSPPQVKSLATSCPEELSRGNVLAWPDLPLSGIVGKVKIDSKSIFCSDCPPLEGSVPH	1639
Rhinatrema_bivittatum	DHTLSPSEVKSLATSCPEELKKGNVLAWPDLPLGVVGRVKIDSKSIFCADCPGLEGSVPH	1634
Xenopus_tropicalis	DHPLTPAQIKSLATSCPEELQKGNVLAWADFLPLGVVGRVKVDHKSIFCADCPALEGTSVPH	1643
Latimeria_chalumnae	-----	1427
1750.....1760.....1770.....1780.....1790.....1800	

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                                     * * * * *
Pavo_muticus      LRASSSDLKPGSKVSLSCDPGFQIVGNSVOHCLNMGOWTRPFPRCERISCGVPPPLENGG 1701
Pavo_cristatus    LRASSSDLKPGSKVSLSCDPGFQIVGNSVOHCLNMGOWTRPFPRCERISCGVPPPLENGG 1701
Gallus_gallus     LRASSSDLKPGSKVSLSCDPGFQIVGNSVOHCLNMGOWTRPFPRCERISCGVPPPLENGG 1701
Anas_platyrhynchos LRASSSDLKPGSKVSLSCDPGFQIVGNSVOHCLNMGOWTRPFPRCERISCGVPPPLENGG 1706
Chelonia_mydas    LRASSTNLKPGSKVSLSCDPGFQIVGNSVOHCLNMGOWTRPFPRCERISCGVPPPLENGF 1475
Mus_musculus      LRPASGNRKPGSKVSLFCDPGFQMVGNPVQYCLNQGOWTQPLPHCERIRCGLPPELNGF 1699
Rattus_norvegicus LRPASGDRKPGSKVSLFCDPGFQMVGNPVQYCLNQGOWSOPPLHPCERIRCGLPPTLNGF 1836
Bos_taurus        LRTASRDVKPGSKIISLFCDPGFQMVGNPVQYCLNQGOWTQPLPRCERISCGVPPPLENGF 1701
Equus_caballus    LRTASANLKPGSKISLFCDPGFQMVGNPVQYCLNQGOWTQPLPHCERISCGVPPPLENGF 1699
Canis_lupus_familiaris LRTTSVDLKPGSKISLFCDPGFQMVGNPVQYCLNQGOWTQPLPHCERISCGVPPPLENGF 1699
Homo_sapiens      LRTASEDLKPGSKVNLFCDPGFQLVGNPVQYCLNQGOWTQPLPHCERISCGVPPPLENGF 1700
Pan_troglodytes   LRTASEDLKPGSKIHLCDFPGFQLVGNPVQYCLNQGOWTQPLPHCERISCGVPPPLENGF 1700
Macaca_mulatta    LRTASEDLKPGSKISLFCDPGFQLVGNPVQYCLNQGOWTQPLPHCERISCGVPPPLENGF 1700
Callithrix_jacchus LRTTSADLKPGSKISLFCDPGFQLVGNPVQYCLNQGOWTQPLPHCERISCGVPPPLENGF 1699
Rhinatrema_bivittatum LHSSTTDFKPGSKISLFCDPGFQIVGGSIOQCINLGOWSOPPLRCERISCGVPPPLENGF 1694
Xenopus_tropicalis LHATKSDHKPGSKISLFCNPGFQIVGKPERQCLNLGEWDQPLPHCERISCGKPPRLNGF 1703
Latimeria_chalumnae -----TRCGTTPPLENGF 1440
.....1810.....1820.....1830.....1840.....1850.....1860

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: *::: ****: ***. *****. *** *.***. ***** :****.:::
Pavo_muticus      YAAEDFFAGSTITYQCNSGYLLGDFEMFCKDNGSWSSISPSCLDVDECAVGSDCDEHAS 1761
Pavo_cristatus    YAAEDFFAGSTITYQCNSGYLLGDFEMFCKDNGSWSSISPSCLDVDECAVGSDCDEHAS 1761
Gallus_gallus     YAAEDFFAGSTITYQCNSGYLLGDFEMFCKDNGSWSSISPSCLDVDECAVGSDCDEHAS 1761
Anas_platyrhynchos YAAEDFFAGSTITYQCNSGYLLGDFEMFCKDNGSWSSISPSCLDVDECAVGSDCDEHAS 1766
Chelonia_mydas    YSAEDFFAGSTVSYQCNSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCDEHAS 1535
Mus_musculus      YSAEDFHAGSTVITYQCTSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCSEHAS 1759
Rattus_norvegicus YSAEDLHAGSTVITYQCTSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCSEHAS 1896
Bos_taurus        YSAEDFHAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCSEHAS 1761
Equus_caballus    YSAEDFHAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCSEHAS 1759
Canis_lupus_familiaris YSAEDFHAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCSEHAS 1759
Homo_sapiens      HSADDFYAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGVSPSCLDVDECAVGSDCSEHAS 1760
Pan_troglodytes   HSADDFYAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGVSPSCLDVDECAVGSDCSEHAS 1760
Macaca_mulatta    HSADDFYAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGVSPSCLDVDECAVGSDCSEHAS 1760
Callithrix_jacchus HSADDFLAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGISPSCLDVDECAVGSDCSEHAS 1759
Rhinatrema_bivittatum YSAEDFYAGSTVITYQCNSGYLLGHSRMFCTIDTGSWSETSPSCLDVDECAVGSDCDEHAS 1754
Xenopus_tropicalis YNAEDLFAGSTVITYQCNSGYLLGDSRMFCTDNGSWNGISPSCLDVDECEIGSDCDEHAS 1763
Latimeria_chalumnae YTAEDFYAGSTIIYQCNSGYLLGDSRMFCTDNGSWNGIPPSCLDVDECALGSDCDEHAT 1500
.....1870.....1880.....1890.....1900.....1910.....1920

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Pavo_muticus      CLNTNGSYVCTCIPPYTGDGKKCAEPVKCRNLGNPANGHMHGDMYSVGSQVTFSC EEGFQ 1821
Pavo_cristatus    CLNTNGSYVCTCIPPYTGDGKKCAEPVKCRNPNGNPANGHMHGDMYSVGSQVTFSC EEGFQ 1821
Gallus_gallus     CLNTNGSYVCTCIPPYTGDGKKCTEPVKCRNPNGNPANGHMYGDTYSVGSQVTFSC ECKGFQ 1821
Anas_platyrhynchos CLNTNGSYVCTCIPPYKGDGKKCTEPVKCRNPNGNPANGRLYGDYISVGSEVTFSC EEGFQ 1826
Chelonia_mydas    CLNTNGSYVCTCIPPHTGDGKKCAEPVKCKNPNGNPEHGHSYGDNYSVGSEVTFSC EEGFQ 1595
Mus_musculus      CLNTNGSYVCSNPYPYTGDGKNCAEPVKCKAPENPENHSSGEIYTVGTAIVTFSC DEGHF 1819
Rattus_norvegicus CLNTNGSYICSCKPPYTGDGKNCAEPVKCKAPENPENHSSLGKIYSVGAEVTFSC EEGHQ 1956
Bos_taurus        CLNTNGSYVCSCIPPYTGDGKNCAEPIKCKTPGNPENHSSGETYTVGAEVTFSC EEGYQ 1821
Equus_caballus    CLNTNGSYVCSCIPPYTGDGKNCAEPVKCKPPGNPENHSSGEIYTVGAEVTFSC EEGHQ 1819
Canis_lupus_familiaris CLNTNGSYICSIPPYTGDGKNCAEPIKCKAPGNPENGYSSGEIYTLGAKVTFSC KEGYQ 1819
Homo_sapiens      CLNVDGSYICSVPYPYTGDGKNCAEPIKCKAPGNPENHSSGEIYTVGAEVTFSC QEGYQ 1820
Pan_troglodytes   CLNVDGSYICSVPYPYTGDGKNCAEPIKCKAPGNPENHSSGEIYTVGAEVTFSC QEGYQ 1820
Macaca_mulatta    CLNIDGSYICSIPPYTGDGKNCAEPIKCKAPGNPENGYSSGDIYTVGAEVTFSC QEGYQ 1820
Callithrix_jacchus CLNIDGSYICSIPPYTGDGKNCAEPIKCKPPGNPENHSSGEIYTVGAEVTFSC QEGYQ 1819
Rhinatrema_bivittatum CLNTNGSYVCSIPPYTGNGKSCAEPIKCRAGHPFEGRAFGDTYTVGSDVTFSC GEGYQ 1814
Xenopus_tropicalis CMNTNGSYICTCIPPYHGDGKKCLEPVKCKDPGEIENGNYSGNHFGVGSQLMFSCHEGYD 1823
Latimeria_chalumnae CLNTNGSYICTCIESYTGDKHCAAPIKCKDPGRPEYGFAGSMYTVDSVTFSC EEGYQ 1560
.....1930.....1940.....1950.....1960.....1970.....1980

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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* *      : *      : * *      * * : : *      * *      :      * :      * * : * : * : * : * :
Pavo_muticus      LTGVTKLTCMESGEWSHSIPYCEAISCGRPIIPENSAIWGSNFTYRSKVIYRCNDGYSIV      1881
Pavo_cristatus    LTGVTKLTCMESGEWSHSIPYCEAISCGRPIIPENSAIWGSNFTYRSKVIYRCNDGYSIV      1881
Gallus_gallus     LTGVTKLTCMESGEWSHSIPYCEAISCGRPIIPENSAIWGSNFTYRSKVIYRCNDGYSIV      1881
Anas_platyrhynchos LTGVTKLTCMESGEWSHSIPYCEAISCGGPVIPENGVIWGSNFTYRSKVIYRCNDGYRLV      1886
Chelonia_mydas    LIGATRVTCLQSGGWSHLIPYCEAVSCGSPVIPENGAIEGSNFTYGKKVLYRCNKGYNLM      1655
Mus_musculus      LVGVSTITCLETGEWDLRPSCEAISCGVPPVPENGVDGSAFTYGSKVYVYRCNDKGYTLS      1879
Rattus_norvegicus LVGVRKITCLESGEWDHLRPSCEAISCGAPPVPENGVDGSAFTYGSKVRYRCNDKGYTLA      2016
Bos_taurus        LVGAARITCLESGEWSHLIPYCEAVSCGAPALPENGVDGSAFTYGNKVYIYRCNKGYTLE      1881
Equus_caballus    LMGETKITCLESGEWSHLMPIYCEAVSCGAPAFPENGIDGSTFTYGSKVYVYRCNDKGYTLD      1879
Canis_lupus_familiaris LVGATKITCLESGEWSDLLPYCEAVFCGVPAPENGIDIVSFTYGSKVYIYRCNKGYTIN      1879
Homo_sapiens      LMGVTKITCLESGEWNHLIPYCKAVSCGKPAIPENGCIELAFITFGSKVYIYRCNKGYTIA      1880
Pan_troglodytes   LMGVTKITCLASGEWNHLIPYCKAVSCGKPAIPENGCIELAFITFGSKVYIYRCNKGYTIA      1880
Macaca_mulatta    LMGVTKITCLESGEWNHLIPYCKAVSCGKPAIPENGCIELAFITFGSKVYIYRCNKGYTIA      1880
Callithrix_jacchus LMGVTKITCLESGEWNHLLPYCKAVSCNKPAIPENGCIEELEFTFGSKVYIYRCNKGYTIA      1879
Rhinatrema_bivittatum LMGDTKIICLESGEWSRTIPYCOAVSCGSPVSPDNGAIEGSAFTYGNKVYIYRCNDGYQLT      1874
Xenopus_tropicalis LIGLVKVTCLASGEWDDALPYCOAVSCGKVPAPNNGEILGSNFTYGNKVYIYRCNDGYTLI      1883
Latimeria_chalumnae LIGAAKVTCSSEGEWSQPIPYCOAISCGVPSGPLNSVVEASNFTYGNKVYIYRCNDGYRLV      1620
.....1990.....2000.....2010.....2020.....2030.....2040

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Pavo_muticus      GEKEIMCLASGVWNHPPSPCEMVTCPSPDISNGKYTLTGTTYLSSVSYSYCDNGYSLOQP      1941
Pavo_cristatus    GEKEIMCLASGVWNHPPSPCEMVTCPSPDISNGKYTLTGTTYLSSVSYSYCDNGYSLOQP      1941
Gallus_gallus     GEKEIMCLASGVWNHPPSPCEMVTCPSPDISNGKYTLTGTTYLSSVSYSYCDNGYSLOQP      1941
Anas_platyrhynchos GEKEIVCLASGVWNHPPSPCEMVTCPSPONISNGKYTLTGTTYLSSVSYSYCDNGYSLOQP      1946
Chelonia_mydas    GEKETSCLASGAWNHPACEIVTSPDISNGKYTLTGTTYLSSVSYSYCDNGYSLOQP      1715
Mus_musculus      GDEESACLASGSWSHSPVCELVKCSQPEDINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1939
Rattus_norvegicus GDEESACLASGSWSHSPVCELVKCSQPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      2076
Bos_taurus        GEKESSCLASGSWSHSPVCELVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1941
Equus_caballus    GDKESSCLASGSWSHSPVCELVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1939
Canis_lupus_familiaris GAKESSCLASGSWSHSLPVCELVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1939
Homo_sapiens      GDKESSCLANSWSHSPVCEPVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1940
Pan_troglodytes   GDKESSCLANSWSHSPVCEPVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1940
Macaca_mulatta    GDKESSCLANSWSHSPVCEPVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1940
Callithrix_jacchus GDKESSCLANSWSHSPVCEPVKCSSPENINNGKYILSGLTLYLSIASYSCDNGYSLOQP      1939
Rhinatrema_bivittatum GDTEASCLASGTWVSHVPPSCELVTCPPPEHISNGNFTMTGITLYLSTVSYTCNDGYSFOGH      1934
Xenopus_tropicalis GNEETVCLANRSWSHALPTCESVTCSKPKEIENGIFSLSGLTLYLSIASYSCDNGYSLOQP      1943
Latimeria_chalumnae GEGETICLANGSWSYNFAFCEVVSPIPDIMNGKYLLKGTTYMSSVVTYCSGDGYRLQGS      1680
.....2050.....2060.....2070.....2080.....2090.....2100

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.      * : *      *      * *      * *      * *      * *      * *      * *      * *      * *      * *      * *      * *      * *      * *
Pavo_muticus      SVLVLCASSGNWNSTPPACSIIVSCGSPPAIKDAVIEGNNFTFGNTVSYTCKEGYTLVGPAT      2001
Pavo_cristatus    SVLVLCASSGNWNSTPPACSIIVSCGSPPAIKDAVIEGNNFTFGNTVSYTCKEGYTLVGPAT      2001
Gallus_gallus     SVLVLCASSGNWNSTPPACSIIVSCGSPPAIKDAVIEGNNFTFGNTVSYTCKEGYTLVGPAT      2001
Anas_platyrhynchos SVLVLCASSGNWNSTPPACSIIVSCGSPPAIKDAIINGNNFTFGSTVSYTCKEGYTLVGPAT      2006
Chelonia_mydas    PVLVCEASANWNSIPPVKIIVSCGSPPAIKDAMISGNNFTFGSTVSYTCKEGYTLVGPAT      1775
Mus_musculus      SLLECTASGSWDRAPPSCQLVSCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      1999
Rattus_norvegicus SLIECTASGSWDRAPPSCQLVSCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      2136
Bos_taurus        SVIECSASGSWDRAPPSCQLVSCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      2001
Equus_caballus    SVIECSASGSWDRAPPSCQLVSCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      1999
Canis_lupus_familiaris SVIECSASGSWDRAPPSCQLVSCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      1999
Homo_sapiens      SIIECTASGIWDRAPPACHLVFCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      2000
Pan_troglodytes   SIIECTASGIWDRAPPACHLVFCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      2000
Macaca_mulatta    SIIECTASGIWDRAPPACHLVFCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      2000
Callithrix_jacchus SIIECTASGIWDRAPPACHLVFCGEPPIVVDKDAVITGSNFTFGNTVSYTCKEGYTLVGPAT      1999
Rhinatrema_bivittatum STRTCEASARWSDAAPVCELVFCGPPPEVKDAIITGNNFTFASRVTYTCKEGYTLVGPAT      1994
Xenopus_tropicalis ATLICEASGNWSSEVPSCDLVSCGPPPLVRDADATGDNYTYSNIITYKKEGYTLVGPAT      2003
Latimeria_chalumnae STLTCASGEWDSPTPACKILSCGPPPIVVKHSNSTGDNFTFGNTVSYTCKEGYTLVGPAT      1740
.....2110.....2120.....2130.....2140.....2150.....2160

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* :.:*. **.: *.:.* * : * .. :***.* * :.* ****: *.:.:
Pavo_muticus      IECLASGEWSVSHQQCLAVSCDEPPHVENASPENGHRLYGDIAYYFCSDGYSLADNSQLL 2061
Pavo_cristatus    IECLASGEWSVSHQQCLAVSCDEPPHVENASPENGHRLYGDIAYYFCSDGYSLADNSQLL 2061
Gallus_gallus     IECLASGEWSVSHQQCLAVSCDEPPHVENASPENGHRLYGDIAYYFCSDGYSLADNSQLL 2061
Anas_platyrhynchos IECLASGEWSVNHQQCLAVSCDEPPHVENASPORAHRLFGDTAYYFCSDGYSLADNSQLL 2066
Chelonia_mydas    VECLASGEWNMSRQQCLAVSCDEPPHVEHASPEAHRLFGDTAYYFCSDGYSLADNSQLL 1835
Mus_musculus      IVCQANGKWNSSNHQCLAVSCDEPPNVDHASPETAHRLFGDTAFYYCADGYSLADNSQLI 2059
Rattus_norvegicus IICQANGKWNSSNHQCLAVSCDEPPNVDHASPETAHRLFGDTAFYYCADGYSLADNSQLI 2196
Bos_taurus        IECLASGKWSRSDQQCLAVSCDEPPSVEHASPETAHRLFGDTAFYYCSDGYSLADNSQLL 2061
Equus_caballus    IECLASGEWSGSNQQCLAVSCDEPPNVEHASPETAHRLFGDTAFYYCSDGYSLADNSQLI 2059
Canis_lupus_familiaris IECLANGKWNSSNQQCLAVSCDEPPNVEHASPETAHRLFGDTAFYYCSDGYSLADNSQLL 2059
Homo_sapiens      IECLADGKWSRSDQQCLAVSCDEPPIVDHASPETAHRLFGDTAFYYCSDGYSLADNSQLL 2060
Pan_troglodytes   IECLADGKWSRSDQQCLAVSCDEPPIVDHASPETAHRLFGDTAFYYCSDGYSLADNSQLL 2060
Macaca_mulatta    IECLANGKWSRSDQQCLAVSCDEPPNVDHASPETAHRLFGDTAFYYCSDGYSLADNSQLL 2060
Callithrix_jacchus IECLANGKWSGSDQQCLAVSCDEPPNVDHASPETAHRLFGDTAFYYCSDGYSLADNSQLL 2059
Rhinatrema_bivittatum LNCLASGKWSGSIPQCLAVSCDEPPNVDHASPEGHRLFGDTAIYYCSDGYSLVDNAQML 2054
Xenopus_tropicalis INCSSSGKWSEHIPPQMAVSCDEPPNVDIYASHSHRLFGDTAYYFCSDGYSMVDNAQML 2063
Latimeria_chalumnae TECLANGKWSPPSSAQCVRSCGDPHVDNAFPESGHRLFGDTAIYFYCYDGYSIADNSQLH 1800
.....2170.....2180.....2190.....2200.....2210.....2220

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*:.:*.***. * :.:.*.:* * :.:***.* :.* * : * :.* **.* **.*:***
Pavo_muticus      CNAEGKWVPPEGKKMPYCVADFCEKPSIVSYSILESISKARFPAGSIVSFKCMEGFVLNT 2121
Pavo_cristatus    CNAEGKWVPPEGKKMPYCVADFCEKPSIVSYSILESISKARFPAGSIVSFKCMEGFVLNT 2121
Gallus_gallus     CNAEGKWVPPEGKKMPYCVADFCEKPSIVSYSILESISKARFPAGSIVSFKCMEGFVLNT 2121
Anas_platyrhynchos CNAEGKWVPPEGKTMPHCIADFCEKPSIVSYSILESISKARFAAGSIVSFKCMEGFILNT 2126
Chelonia_mydas    CNAQGWVPPAGMKMPHCVADFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 1895
Mus_musculus      CNAQGNWVPPAGQAVPRCIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2119
Rattus_norvegicus CNAQGNWVPPAGQAVPRCIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2256
Bos_taurus        CNAQGWVPPPEGQAMPRIAHFCEKPPAVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2121
Equus_caballus    CNAQGWVPPPEGQAVPRCIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2119
Canis_lupus_familiaris CNAQGWVPPPEGQAMPRIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2119
Homo_sapiens      CNAQGWVPPPEGQDMPRIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2120
Pan_troglodytes   CNAQGWVPPPEGQDMPRIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCMEGFVLNT 2120
Macaca_mulatta    CNAQGWVPPPEGQDMPRIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCLEGFVLNT 2120
Callithrix_jacchus CNAQGWVPPPEGQDMPRIAHFCEKPPSVSYSILESISKARFAAGSIVSFKCTEGFILNT 2119
Rhinatrema_bivittatum CNAQGNWVPPKDLTPRCIADFCEKPKAVSYSILESIDKAKFAVGTIVSFKCMEGFVLNT 2114
Xenopus_tropicalis CNTEGNWVPPDQKEIPNCIADFCEKPPSVVAHSILESINKAKFVSGTIVSFKCMEGFVLNT 2123
Latimeria_chalumnae CNSQGWVPPDQKEMPHCIAEFCKRPLEVPTILESINKVKFASGIVSFKCMEGFVLNT 1860
.....2230.....2240.....2250.....2260.....2270.....2280

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Pavo_muticus      SAKIECLRGGIWNPSPLSIQICIPVRCGEPPHISNGYASGTNYSFGAVVAYSCKNGFYIKG 2181
Pavo_cristatus    SAKIECLRGGIWNPSPLSIQICIPVRCGEPPHISNGYASGTNYSFGAVVAYSCKNGFYIKG 2181
Gallus_gallus     SAKIECLRGGIWNPSPLSIQICIPVRCGEPPNISNGYASGTNYSFGAVVAYSCKNGFYIKG 2181
Anas_platyrhynchos SAKIECLRGGIWNPSPLSIQICIPVRCGEPPHISNGYASGTNYSFGAVVAYSCKNGFYIKG 2186
Chelonia_mydas    SAKIECNRGGQWTPSPLTIQICIPVRCGEPPSIRNGYKSGANYRFGAVVAYSCKNGFYIKG 1955
Mus_musculus      SAKIECLRGGQWSPSPLSVQICIPVRCGEPPSIANGYPSGTNYSFGAVVAYSCHKGFYIKG 2179
Rattus_norvegicus SAKIECLRGGQWSPSPLSVQICIPVRCGEPPSITNGYPSGTNYSFGAVVAYSCHKGFYIKG 2316
Bos_taurus        SAKIECLRGGQWSPSPMSIQICIPVRCGEPPRIANGYAGSNYSFGAMVAYSCKNGFYIKG 2181
Equus_caballus    SAKIECMRGGQWNPSPMSIQICIPVRCGEPPSIMNGYASGNYSFGAMVAYSCKNGFYVKG 2179
Canis_lupus_familiaris SAKIECLKGGQWNPSPMSIQICIPVRCGEPPSIMNGYASGTNYSFGAMVAYSCKNGFYIKG 2179
Homo_sapiens      SAKIECMRGGQWNPSPMSIQICIPVRCGEPPSIMNGYASGNYSFGAMVAYSCKNGFYIKG 2180
Pan_troglodytes   SAKIECMRGGQWNPSPMSIQICIPVRCGEPPSIMNGYASGNYSFGAMVAYSCKNGFYIKG 2180
Macaca_mulatta    SAKIECMRGGQWNPSPMSIQICIPVRCGEPPSIMNGYASGNYSFGAMVAYSCKNGFYIKG 2180
Callithrix_jacchus SAKIECMRGGQWNPSPMSIQICIPVRCGEPPSIMNGYASGNYSFGAMVAYSCKNGFYIKG 2179
Rhinatrema_bivittatum SAKIECIRGGQWNPSPMSIQICIPVRCGEPPITIRNGYVSGVNYSGDAVVAYSCKNGFYIKG 2174
Xenopus_tropicalis TARIECVRGGQWIPSSLTIQICIPVRCGEPPSIKNGYVSGTNYSGSVVAYSCKNGFYIKG 2183
Latimeria_chalumnae SATIKCMRGGQWIPSPFSIQICIPVRCGEPPGIEQGYMIGTNYSGAVVAYSCKNGFYIKG 1920
.....2290.....2300.....2310.....2320.....2330.....2340

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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***  : * : * : * .      * : * : * * : * : * : * : * :      * :      * :      * :      * :
Pavo_muticus      EKKRTCEATGWSGNLPTCHPVSCGEPPQLENGFIKETTGHHFFENQANYQCESGYHLVGS 2241
Pavo_cristatus    EKKRTCEATGWSGNLPTCHPVSCGEPPQLENGFIKETTGHHFFENQANYQCESGYHLVGS 2241
Gallus_gallus     EKKRTCEATGWSGNLPTCHPVSCGEPPQLENGFIKETTGHHFFENQANYQCESGYHLVGN 2241
Anas_platyrhynchos EKKRTCEATGNWSGNLPTCHPVSCGEPPQLENGFIKETTGRRFFENQANYQCKSGYHLVGS 2246
Chelonia_mydas    EKKRTCEATGDWSGTLPTCHPVSCGEPPKLENGVIESITGRRFFENEVYQCNAGYKLVGS 2015
Mus_musculus      EKKSTCEATGQWSKPTPTCHPVSCNEPPKVENGFLHETTGRTFESEARFQCNPGYKAAGS 2239
Rattus_norvegicus EKKSTCEATGQWSRPLPTCHPVSCNEPPKVENGFLHETTGRTFESEARFQCNPGYKAVGS 2376
Bos_taurus        EKKSAACEATGRWGSPTPTCHPVSCAEPKVENGFLEHTTGRTFESEVRYQCNPGYKSVGS 2241
Equus_caballus    EKKSTCEATGQWSPTPTCHPVSCNEPPKVENAFLEHATGRIFESEVRYQCNPGYKSVGS 2239
Canis_lupus_familiaris EKKSTCEATGQWSPTPTCHPVSCNEPPKVENGFLHETTGRIFESEVRYQCNPGYKSVGS 2239
Homo_sapiens      EKKSTCEATGQWSPIPTCHPVSCGEPPKVENGFLHETTGRIFESEVRYQCNPGYKSVGS 2240
Pan_troglodytes   EKKSTCEATGQWSPIPTCHPVSCGEPPKVENGFLHETTGRIFESEVRYQCNPGYKSVGS 2240
Macaca_mulatta    EKKSTCEATGQWSPIPTCHPVSCGEPPKIENGFLHETTGRIFESEVRYQCNPGYKSVGS 2240
Callithrix_jacchus EKKSTCEATGQWSPIPTCHPVSCGEPPKIENGFLHETTGRIFESEVRYQCNPGYKSVGS 2239
Rhinatrema_bivittatum EKKRTCEATGEWSGRMPTCHPVSCGEPPQLENGLLQLKTGTVFENEVYHCKPGYKLVGS 2234
Xenopus_tropicalis EKKRTCLASGEWSGRLPACHPGSCDDPPKLENGFVSKTGLLYESKVIYACNPGYKLVGS 2243
Latimeria_chalumnae EKKRTCEATGEWSGRLPACYPVSCGEPPQIENGAILNKTGMTFGSNVYVYCKPGYKLEGS 1980
.....2350.....2360.....2370.....2380.....2390.....2400

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: * * * : * : * : * : * * * * : * * : * : * : * : * : * : * :
Pavo_muticus      SVFICQANRQWYSESPRCVPLSCGKPPPIQHGYSKGETFTDTSKVEFFCEEYELIGDV 2301
Pavo_cristatus    SVFICQANRQWYSESPRCVPLSCGKPPPIQHGYSKGETFTDTSKVEFFCEEYELIGDV 2301
Gallus_gallus     SVFICQANRQWYSESPRCVPLSCGKPPPIQHGYSRGETFTDTSKVEFFCEEYELIGDV 2301
Anas_platyrhynchos SLFICQANRQWYSESPRCVPLSCGKPPPIQHGYSKGETFTDLGSKVEFFCEEYELIGDV 2306
Chelonia_mydas    SVAVCQANRQWYSESPRCVPLSCGKPPPIQHGYSKGETFTDLGSKVEFFCEEYELIGDV 2075
Mus_musculus      PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGFLKGESFEVGSKVQFVCNEGYELVGDN 2299
Rattus_norvegicus PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGFLRGESFEVGSKVQFVCNEGYELVGDN 2436
Bos_taurus        PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYTKGENFEVGSKVQFVCNEGYELIGEH 2301
Equus_caballus    PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYMKGENFEVGSKVQFVCNEGYELVGDN 2299
Canis_lupus_familiaris PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYMKGENFEVGSKVQFVCNEGYELVGDN 2299
Homo_sapiens      PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYMKGENFEVGSKVQFVCNEGYELVGDN 2300
Pan_troglodytes   PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYMKGENFEVGSKVQFVCNEGYELVGDN 2300
Macaca_mulatta    PVFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYMKGEIFEVGSKVQFVCNEGYELVGDN 2300
Callithrix_jacchus LLFVCQANRHWHSADAPLSCPLNCGKPPPIQNGYMKGENFEVGSKVQFVCNEGYELVGDN 2299
Rhinatrema_bivittatum SVRVCQANRQWYSESPRCVLLSCGKPPPIPHGYSNGEIFEVGSKVDFDCDEGYELKGDG 2294
Xenopus_tropicalis NVRVCQANRQWYSESPRCVLLTCEKPPPVKYGSMKGENFEVGSKVQFVCNEGYELVGDN 2303
Latimeria_chalumnae SGRVCQANRQWYSDSPRCVLLNCGKPPPLEHGYFKGDSFEVGSSTVDIYCDGYELSGDT 2040
.....2410.....2420.....2430.....2440.....2450.....2460

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: * * * : * : * : * : * * * * : * * : * : * : * : * : * : * :
Pavo_muticus      SWTCQKSGKWNKKQSPKCVPTKCEPPLVENQLVLRVITYQVGVVQFSCKEGYVLHGSSV 2361
Pavo_cristatus    SWTCQKSGKWNKKQSPKCVPTKCEPPLVENQLVLRVITYQVGVVQFSCKEGYVLHGSSV 2361
Gallus_gallus     SWTCQKSGKWNKKQSPKCMPTKCEPPLAENQLVLRVITYQVGVVQFSCKEGYVLHGSSV 2361
Anas_platyrhynchos SWTCQKSGKWNKKQSPKCVPTKCEPPLAENQLVLRVITYQVGVVQFSCKEGYVLHGSPV 2366
Chelonia_mydas    SWTCQKSGKWNKKQSPKCVPTKCEPPLIENHLVLRKEMVHOVGVVQFSCKEGYVLHGSSA 2135
Mus_musculus      SWTCQKSGKWSKKPSPKCVPTKCAEPPLLENQLVLKELASEVGVMTISCKEGHALQGSPV 2359
Rattus_norvegicus SWTCQKSGKWSKKPSPKCVPTKCAEPPLLENQLVLKELTSEVGVMTISCKEGHALQGSPV 2496
Bos_taurus        SWTCQKSGKWNKKPNQKCVPAKCEPPLLENQLVLKELTTEVGVVTFSCKEGHVLOGRSV 2361
Equus_caballus    SWTCQKSGKWNKKPNQKCVPTKCEPPLLENQLVLKELTTEVGVVTFSCKEGHVLOGRSV 2359
Canis_lupus_familiaris SWTCQKSGKWNKKLNQKCVPAKCEPPLLENQLVLKELATEVGVVTFSCKEGHVLOGRSV 2359
Homo_sapiens      SWTCQKSGKWNKKSNPKCMPAKCEPPLLENQLVLKELTTEVGVVTFSCKEGHVLOGRSV 2360
Pan_troglodytes   SWTCQKSGKWNKKSNPKCMPAKCEPPLLENQLVLKELTTEVGVVTFSCKEGHVLOGRSV 2360
Macaca_mulatta    SWTCQKSGKWDKKNLNPCKVPAKCEPPLLENQLVLKELTTEVGVVTFSCKEGHVLOGRSV 2360
Callithrix_jacchus SWTCQKSGKWNKKPNPKCMPAKCEPPLLENQLVLKELTTEVGVVTFSCKEGHVLOGRSV 2359
Rhinatrema_bivittatum SWTCQKTGKWSKKQSQVCMAPAKCEPPLLENQLVLRMANEVGIVYFSCIIEGYVLHGSSFV 2354
Xenopus_tropicalis SWTCQKNGEWDKKQTPTCMPKQDPPLYENHLVLRKEVPNEVGIVRFSCKEGHVLGSSV 2363
Latimeria_chalumnae TWICQKNGKWSQKQAPVCTPAKCEPPLFERQLILKEHVNETGIVYVLCREGYIILYGAPA 2100
.....2470.....2480.....2490.....2500.....2510.....2520

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*:::.. **.*.*.* * * * :::. . * *** . * *::.*.*:..
Pavo_muticus      LKCLPSQQWNDSFPFCKVVQCPAPPYVPFSDTLTSS-LYFGSTVKYICVDGFLKGEPTI 2420
Pavo_cristatus    LKCLPSQQWNDSFPFCKVVQCPAPPYVPFSDTLTSS-LYFGSTVKYICVDGFLKGEPTI 2420
Gallus_gallus     LKCLPSQQWNDSFPFCKVVQCPAPPYVPFSDTLTSS-LYFGSTVKYICVDGFLKGEPTI 2420
Anas_platyrhynchos LKCLPSQQWNDSFPFCKVVQCPAPPYIPFSDPLTSS-LLFGSTVKYICVDGFLKGEPTI 2425
Chelonia_mydas    LKCLPSQQWNDSFPVCKVVLCHGPPYIPFGVPASS-LHFGSTVTVTCMDGFLKGEPTI 2194
Mus_musculus      LKCLPSQQWNDSFPICKMVLCPSPPLIPFGVPASSGALHFGSTVKYLCVDGFFLRGSPIT 2419
Rattus_norvegicus LKCLPSQQWNDSFPVCKMVLCPSPPLIPFGVPASSGALHFGSTVKYLCVDGFFLRGNPII 2556
Bos_taurus        LRCLPSQQWNDSFPVCKMVLCLPPPLISFGVPAPSSALHFGSTVKYSCVDGFFLRGDPTT 2421
Equus_caballus    LKCLPSQQWNDSFPICKMVLCLPPPLISFGVPAPSSALHFGSTVKYSCVDGFFLRGDPTT 2419
Canis_lupus_familiaris LKCLPSQQWNDSFPVCKMVLCLPPPLISFGVPAPSSALHFGSTVKYSCVDGFFLRGDPTT 2419
Homo_sapiens      LKCLPSQQWNDSFPVCKIVLCTPPPLISFGVPAPSSALHFGSTVKYSCVGGFFLRGNSTT 2420
Pan_troglodytes   LKCLPSQQWNDSFPVCKMVLCTPPPLISFGVPAPSSALHFGSTVKYSCVGGFFLRGNSTT 2420
Macaca_mulatta    LKCLPSQQWNDSFPVCKMVLCTPPPLISFGVPAPSSALHFGSTVKYSCVGGFFLRGNSTT 2420
Callithrix_jacchus LKCLPSQQWNDSFPVCKTVLCTPPPLISFGVPAPSSDLHFGSTAKYSCVNGFFLRGNSTT 2419
Rhinatrema_bivittatum LKCLPSQQWNDSFPFCRLVVCMPPIYIPFGDSSFSS-LQFGSIVKYSCVDGFLKGNPEI 2413
Xenopus_tropicalis LKCLPSQQWNDSFPLCKLVFCSSPPELAYGEPISVPSLYFGSTVKYTCVDGFLKGEPTI 2423
Latimeria_chalumnae LKCMSNGLWNDSFPFCVLVLCGRLPVVSFGEPSVPS-LYFGSTAIYSAMDGFVLKSGSTV 2159
.....2530.....2540.....2550.....2560.....2570.....2580

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* .. *: :*: * :*:.*:* * :*:.*:*:*:*:*:*:*:*:*:* * :*: * :*
Pavo_muticus      RCQADGSWSLPLPECIPVECPQPEEIQNGIVDVQGLTFLSTALYTCCKPGFELVGNNTILC 2480
Pavo_cristatus    RCQADGSWSLPLPECIPVECPQPEEIQNGIVDVQGLTFLSTALYTCCKPGFELVGNNTILC 2480
Gallus_gallus     RCQADGSWSLPLPECIPVECPQPEEIQNGIVDVQGLTFLSTALYTCCKPGFELVGNNTILC 2480
Anas_platyrhynchos RCQADGSWSLPLPECIPVECPQPEEIQNGIVDVQGLTFLSTALYTCCKPGFELMGNNTILC 2485
Chelonia_mydas    GCQADGSWSFPLPECIPVECPQPEEIQNGIVDVQGLTYLSTALYTCCKPGFELGNNTILC 2254
Mus_musculus      LCQADSTWSSPLPECVPVECPQPEEILNGIIVQGLAYLSTLYTCCKPGFELVGNATTLT 2479
Rattus_norvegicus LCQVDGTWSSPLPECVPVECPQPEEILNGIIVQGLAYLSTLYTCCKPGFELVGNNTTLC 2616
Bos_taurus        SCQADGTWSSPLPECVPVECPQPEEILNGIIVQGLAYLSTALYTCCKPGFELVGNNTTLC 2481
Equus_caballus    FCQADGTWSSPLPECVPVECPQPEEILNGIIVQGLAYLSTALYTCCKPGFELVGNNTTLC 2479
Canis_lupus_familiaris SCQADGTWSSPLPECVPVECPHPEEILNGIIVQGLAYLSTALYTCCKPGFELVGNNTILC 2479
Homo_sapiens      LCQPDGTWSSPLPECVPVECPQPEEIPNGIIVQGLAYLSTALYTCCKPGFELVGNNTTLC 2480
Pan_troglodytes   LCQPDGTWSSPLPECVPVECPQPEEIPNGIIVQGLAYLSTALYTCCKPGFELVGNNTTLC 2480
Macaca_mulatta    LCQPDGTWSSPLPECVPVECPQPEEIPNGIIVQGLAYLSTALYTCCKPGFELVGNNTTLC 2480
Callithrix_jacchus LCQPDGTWSSPLPECVPVECPQPEEIPNGIIVQGLAYLSTALYTCCKPGFELVGNATTLT 2479
Rhinatrema_bivittatum KCLADGSWTSPLPECIPVECPQPEEIQSGIVDVQGLTYLSTALYTCCKPGFELIGNSTIFC 2473
Xenopus_tropicalis TCNAGSMWSPDFPNCSPICEPQPEEILNGIVDVQGLTFLSAALYTCCKPGFELIGNSTILC 2483
Latimeria_chalumnae TCQADGTWSTPIPECILVECSQPEDIQNGIVDVQGLTYLSTALYTCCKPGFELEGNTTILC 2219
.....2590.....2600.....2610.....2620.....2630.....2640

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: * * * * * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : *
Pavo_muticus      GEDGQWLGGRPVCKPIECPRPKILNGRYSFTNFHYGQTVKYSCDRGFQLOGEETLSCL 2540
Pavo_cristatus    GEDGQWLGGRPVCKPIECPRPKILNGRHSFTNFHYGQTVKYSCDRGFQLOGEETLSCL 2540
Gallus_gallus     GEDGQWLGGRPVCKPIECPRPKILNGRYSFTNFHYGQTVKYSCDRGFQLOGEETLSCL 2540
Anas_platyrhynchos GEDGRWLGGRPACKPIECPRPKILNGKYSFTNFHYGQTVRYSCDRGFQLOGEETLSCL 2545
Chelonia_mydas    GEDGHWLGGKPAKPKVECPKPKKEIQNGKYSFTNFHYGQTVTYLCDRGFQLOGEETLSCL 2314
Mus_musculus      GENGQWLGGKPMCKPIECPEPKKEILNGQFSSVSFQYQGTITYFCDRGFRLEGPKSLTCL 2539
Rattus_norvegicus GENGQWLGGKPMCRPIECPEPKKEILNGQFSSVSFQYQGTITYSCDRGFRLEGPKSLTCL 2676
Bos_taurus        GENGHWLGGKPTCKPIECPKPKKEILNGKLSYTKLHYGQTVTYSCDRGFRLEGPKALTCL 2541
Equus_caballus    GENGHWLGGKPTCKPIECPKPKKEILNGKFTYTNLHYGQTVTYSCDRGFRLEGPKALTCL 2539
Canis_lupus_familiaris GENGQWLGGKPTCKPVECPKPREISNGKFSYTHLHYGQTVTYSCDRGFRLEGPKALTCL 2539
Homo_sapiens      GENGHWLGGKPTCKAIECLKPKKEILNGKFSYTDLHYGQTVTYSCNRGFRLEGPSALTCL 2540
Pan_troglodytes   GENGHWLGGKPRCKAIECLKPKKEILNGKFSYTDLHYGQTVTYSCNRGFRLEGPSALTCL 2540
Macaca_mulatta    GENGHWLGGKPTCKPIECLKPKKEILNGKFSYTNLHYGQTVTYSCNRGFQLEGPSVLTCL 2540
Callithrix_jacchus GENGHWLGGKPTCKPIECLKPKKEILNGKFSYTNLHYGQTVTYSCNRGFQLEGPNALTCL 2539
Rhinatrema_bivittatum EEDGHWLGGTPICKPIECLKPKKEISNGKFSYTNLHYGQTVTYSCDRGFRLEGKKNILTCL 2533
Xenopus_tropicalis GADGYWQGGKPICKPIKSKAKEILNGKFSQSLNHYGQTVTYSCNRGFRLEGQNVLTCL 2543
Latimeria_chalumnae GEDGHWLGGKPTCKPVQCTRPEKITNGRLSYSELHYGHTVIVLCERGFQLEGQKRLTCL 2279
.....2650.....2660.....2670.....2680.....2690.....2700

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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**.*. : * * * * * :*****: :*:**.*.*.*: * *** * : *
Pavo_muticus      TGKWS TDVPS CKAINC QPPQPIENG FVEGADYSYGAMVIYSCVPGFQLSGLAMOTCEESG 2600
Pavo_cristatus    TGKWS TDVPS CKAINC QPPQPIENG FVEGADYSYGAMVIYSCVPGFQLSGLAMOTCEESG 2600
Gallus_gallus     TGEWST DAPS CKAINC QPPQPIENG FVEGADYSYGAMVIYSCVPGFQLSGLAMOTCEESG 2600
Anas_platyrhynchos TGEWST DAPS CKAINC QPPQPIENG FVEGADYSYGAMVIYSCVPGFQLSGLAMOTCEESG 2605
Chelonia_mydas    TGDWDAD VPS CKAINC D PPRPIENG FVEGADYSYGAMIIYSCFPGFQLAGLAMOTCEEHLG 2374
Mus_musculus      TGDWDM D PPS CDAIHCSD PPIENG FVEGADYRYGAMIIYSCFPGFQVLGHAMOTCEESG 2599
Rattus_norvegicus TGNWMD DAPS CNAIHCSD PPIENG FVEGADYRYGAMIIYSCFPGFQVVGHAMOTCEETG 2736
Bos_taurus        TGDWDVD VPS CNAIHC D P PPIENG FVEGADYSYGAMIIYSCFPGFQVAGHAMOTCEESG 2601
Equus_caballus    TGNWDVD VPS CNAIHC N P PPIENG FVEGADYSYGAMIIYSCIPGFQVAGHAMOTCEESG 2599
Canis_lupus_familiaris TGDWMD VPS CSAIHC N P PPIENG FVEGADYGYGAMIIYSCFPGWQVAGHAMOTCGESG 2599
Homo_sapiens      TGDWDVD APS CNAIHC D S PPIENG FVEGADYSYGAMIIYSCFPGFQVAGHAMOTCEESG 2600
Pan_troglodytes   TGDWDVD APS CNAIHC D S PPIENG FVEGADYSYGAMIIYSCFPGFQVAGHAMOTCEESG 2600
Macaca_mulatta    TGDWDVD APS CNAIHC D S PPIENG FVEGADYSYGAMIIYSCFPGFQVAGHAMOTCEESG 2600
Callithrix_jacchus TGEWDVD APS CNAIRC D S PPIENG FVEGADYSYGAMIIYSCFPGFQVTGRAMQICEESG 2599
Rhinatrema_bivittatum TGEWDAD VPF C ETINC D P PPIENG FVEGADYSYGAMIIYSCMPGFQLAGLAMOTCEDSG 2593
Xenopus_tropicalis TGEWNS N P P ICKEITCD P P QIDNG FVEGADYSYGAMIIYSCMPGFQVLGLAMOTCEESG 2603
Latimeria_chalumnae TGKWDAD VPS CRAIHC D P PPIENG FVEGADHSFGAMIIYSCFPGFQITGHAMOTCEEQG 2339
.....2710.....2720.....2730.....2740.....2750.....2760

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*** * *: *****: : :
Pavo_muticus      WSSSTPTCLPTDCGLPPHIDFGEYMQVRHWKYSNKE----SVTESPSLS--RTLLGDNL 2654
Pavo_cristatus    WSSSTPTCLPTDCGLPPHIDFGEYMQVRHWKYSNKE----SVTESPSLS--RTLLGDNL 2654
Gallus_gallus     WSSSTPTCLPTDCGLPPHIDFGEYMQVRHWKYSNKE----SVTESPSLS--RTLLGDNL 2654
Anas_platyrhynchos WSSSTPTCLPTDCGLPPHIDFGEYVQVRHRRERSDQE----GVTESPSLS--HMLLAGNP 2659
Chelonia_mydas    WSSFTPVCLPTDCGLPPHIDFGEYVQVRSEEGHFDQERI--HLTESPPLS--HTLVGSNW 2430
Mus_musculus      WSSSSPTCVPIDCGLPPHIDFGDCTKVRDGGYHFDQED---DMMEVPYLA--HPQHLEAT 2654
Rattus_norvegicus WSSSSPTCVPIDCGLPPHIDFGDCTRVSDGGYFVQED---DMMEVPYLT--HPQHLEAT 2792
Bos_taurus        WSSSIPTCVPIDCGLPPHIDFGDCTVVRDGGYFNQED---DMMEVPVHTPHPPHPLGTV 2658
Equus_caballus    WSSSIPTCVPIDCGLPPHIDFGDCTKVKDGGYFDQEE---DMMEVPVYTPHPPRH LGAV 2656
Canis_lupus_familiaris WSSAIPKCVPVDCGLPPHIDFGECTKVKDGGYHVDQEE---DMMEIPYLTTPRPPHHMAAV 2656
Homo_sapiens      WSSSIPTCMPIDCGLPPHIDFGDCTKLKDDGYFEQED---DMMEVPVYTPHPPYH LGAV 2657
Pan_troglodytes   WSSSIPTCMPIDCGLPPHIDFGDCTKLKDDGYFEQED---DMMEVPVYTPHPPYH LGAV 2657
Macaca_mulatta    WSSSIPTCVPIDCGLPPHIDFGDCTKVKDGGYFEQED---DMMEVPYLTQP P P YQLGAV 2657
Callithrix_jacchus WSSSVPA CVPIDCGLPPHIDFGDCTKVKHGGYKSEQED---DMMEVSYLT P P P P YH LGAV 2656
Rhinatrema_bivittatum WSSSTPMCLSIDCGLPPHIDFGQYVKIRNGKRVFGQADTGEKSSHSSSSHLSSSLVSSSR 2653
Xenopus_tropicalis WSSSTPVCLHTDCGLPPHIDFGQYITVTFEEKILTDE---LKHSIFGVSNII L SPTTT 2659
Latimeria_chalumnae WSSFTPLCLPTDCGLPPHIDFGEYIKVKGPNPFKHKKQ-EDTFKKINQTPSPYSS L NVL 2398
.....2770.....2780.....2790.....2800.....2810.....2820

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. : : : * : * * * * : * * * * * : * * * * * : * * * * *
Pavo_muticus      KSLKSSLKENSAMQLTTF LFGTIILYTCYSGYELLGNPVLACQEDGAWNGTAPSCISIEC 2714
Pavo_cristatus    KSLKSSLKENSAMQLTTF LFGTIILYTCYSGYELLGNPVLACQEDGAWNGTAPSCISIEC 2714
Gallus_gallus     KNLKSSSKENSAMQLTTF LFGTIILYTCYSGYELLGNPVLACQEDGAWNGTAPSCISIEC 2714
Anas_platyrhynchos KDFRSSSKENGAMQLTTF LFGTIILYTCYSGYELLGNPILACQEEGVWNGSAPSCV SIEC 2719
Chelonia_mydas    KDIKSP LKETNAVQLTNFLYGT T VMYTCYSGYELLGNPILACQEDGTWNGSAPVCISIEC 2490
Mus_musculus      AKALENTKESPA SHASHFLYGT MVSYSC EPGYELLGIPVLICQEDGTWNGTAPSCISIEC 2714
Rattus_norvegicus AKASEITEESLVPHASQFLYGT TVSYRCEPGYELLGIPVLVCQEDGTWNGTAPSCISIEC 2852
Bos_taurus        AKIWGNTKGS PAMHSAKFYNTLVSYSCNPGYELLGNAVLI C QEDGTWNGSAPSCISMEC 2718
Equus_caballus    AKTWKNTKGS PATHSANFLYGT MVSYTCNPGYELLGNPVLICQEDGTWNGSAPSCISIEC 2716
Canis_lupus_familiaris A-TWENTKGS PATHSANFYGTIVSYTCNPGYELLGSPMLICQEDGTWNGSAPSCISIEC 2715
Homo_sapiens      AKTWENTKES PATHSSNFLYGT MVSYTCNPGYELLGNPVLICQEDGTWNGSAPSCISIEC 2717
Pan_troglodytes   AKTWENTKES PATHSSNFLYGT IVSYTCNPGYELLGNPVLICQEDGTWNGSAPSCISIEC 2717
Macaca_mulatta    AKTWENTKES PATHSSNFLYGT MVSYTCNPGYELLGNPVLICQEDGTWNGSAPSCISIDC 2717
Callithrix_jacchus AKTWEITKESTATHSS TFLYGT MV SCTCNPGYELLGNPVLICQEDGTWNGSAPSCISIDC 2716
Rhinatrema_bivittatum KDTEK PPLKEVDVELSYFSFGTLIFYTCTGTGEKVGNSVLVCQEDGSWNGSAPVCT SIEC 2713
Xenopus_tropicalis SNTLKTENHSENSQLSEYLYGT NVIYSCNNGYEILGMSVLTCKEDGTWNGSAPACAPIEC 2719
Latimeria_chalumnae SNERKMLPMSEFAEFSEFLYGT MIMYTCFAGHELIGPLMLICQEDGTWNGT SPTCLSIEC 2458
.....2830.....2840.....2850.....2860.....2870.....2880

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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      :*: : * : * : * : * : * : * : * : * : * : * : *
Pavo_muticus      TLLSPDNGFLHFTENTPGSMVQYTCCKPGFTLLIGSDTRLCLNROWSNTAPHCKAITCSS 2774
Pavo_cristatus    TLLSPDNGFLHFTENTPGSMVQYTCCKPGFTLLIGSDTRLCLNROWSNTAPHCKAITCSS 2774
Gallus_gallus     TLLSPDNGFLHFTENTPGSMVQYTCCKPGFTLLIGSDTRLCLNROWSNTAPHCKAITCSS 2774
Anas_platyrhynchos TMPSPPENGVLYFTENTLGSVVQYTCCKPGFTLVGSDTRLCLNROWSNSAPYCKAVTCSS 2779
Chelonia_mydas    DLLSPLENGFLHFTENTLGSVVQYACKPGYKLGSDTRLCLNROWSNAAPHCEVVLCP 2550
Mus_musculus      DLPVAPENGFLHFTQTMTGSAAQYSCCKPGHILEGSHLRLCLNROWSGTVPRCFAISCKS 2774
Rattus_norvegicus DLPVAPENGFLHFTQTMTGSAAQYSCCKPGHILEGSHLRLCLNROWSGTVPRCFAISCKS 2912
Bos_taurus        DLPVAPENGFLHFTTETTTGSAVQYSCCKPGHTLVGSDLRCLNROWSGASPRCEAISCCK 2778
Equus_caballus    DLPVAPENGFLHFTTETTTGSAVQYSCCKPGHILVGSDIRLCLNROWSGTSPRCFAISCKK 2776
Canis_lupus_familiaris DLPVAPENGFLHFTTETTTGSAVQYSCCKPGHILVGSDIRLCLNROWSGTSPRCFAISCKK 2775
Homo_sapiens      DLPTAPENGFLRFTTETSMGSAVQYSCCKPGHILVGSDLRLCLNROWSGASPRCEAISCCK 2777
Pan_troglodytes   DLPTAPENGFLRFTTETSMGSAVQYSCCKPGHILVGSDLRLCLNROWSGASPRCEAISCCK 2777
Macaca_mulatta    DLPIAPENGFLRFTTETSMGSAVQYSCCKPGHILVGSDLRLCLNROWSGASPRCEAISCCK 2777
Callithrix_jacchus DLPIAPENGILRFTTETSMGSAVQYSCCKPGHILVGSDLRLCLNROWSGASPRCEAISCCK 2776
Rhinatrema_bivittatum ELPTAPENGFINFTDNAGSTVQYGCNPGYELIGSDTSLCLNROWSVAPYCEVISCKNI 2773
Xenopus_tropicalis SIPTDPENGVMHYTDNTIGSSVHFECCKPGYELNGSDKSLCLNROWSNNEIPKCVIISCKT 2779
Latimeria_chalumnae EPPVAPENGFNFTDNMLGSAVHYGCNHYEITGSTRYCMSSRKWSEFLPVCERVICPEP 2518
.....2890.....2900.....2910.....2920.....2930.....2940

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      * : . * . : * : . : * : * : * : * : * : * : * : * : *
Pavo_muticus      PTQLMNGNVRGENYTYGSAVYYECDPGYQLNGPTERRCLNOKWDGSEPIICIPVSCSPPL 2834
Pavo_cristatus    PTQLMNGNVRGENYTYGSAVYYECDPGYQLNGPTERRCLNOKWDGSEPIICIPVSCSPPL 2834
Gallus_gallus     PTQLMNGKVRGENYTYGSAVYYECDPGYQLNGPTERRCLNOKWDGSEPIICIPVSCSPPL 2834
Anas_platyrhynchos PAQLMNGSIRGENYTYGSAVYYECDPGYQLNGPAERRCQENOKWDGGEPIICIPVSCSPPL 2839
Chelonia_mydas    PNKLMNGNIKGNKYTYRSVHYECDPGYELNGSDKRTCQDNOKWDGNEPVCIPVSCGQPA 2610
Mus_musculus      PNPLWNGSIKGDYSYLGVLHYECDSGYILNGSKKRTCQENRDWDGHEPVCIPVDCGSP 2834
Rattus_norvegicus PNPVGNGSIKGDYSYLGVLHYECDSGYVNGTEKRTCQENKQWDGHEPVCIPVDCGSP 2972
Bos_taurus        PNPVTDGSIKGSNYSLVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2838
Equus_caballus    PNPVMNGSIKGSNYTYLSVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2836
Canis_lupus_familiaris PNPIMNGSVKGSNYTYLSVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2835
Homo_sapiens      PNPVMNGSIKGSNYTYLSVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2837
Pan_troglodytes   PNPIMNGSIKGSNYTYLSVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2837
Macaca_mulatta    PNPIMNGSIKGSNYTYLSVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2837
Callithrix_jacchus PNPVMNGSIKGSNYTYLSVLYYECNPGYVNGTERRTCQDNKNWDEPVCIPVDCGSP 2836
Rhinatrema_bivittatum PNQLSNGSVEAKNYTYMSVHYECDPGYHLNGPRKRTCQDNKQWDGNEPVCIPVSCSHPP 2833
Xenopus_tropicalis PNKILHGYTEVSNYTYMSVHYKCDKGYQIYGLSRTCQISKQWDGEEPICVVSCGQPP 2839
Latimeria_chalumnae PKNINNGSMVGESYTYQSVIYYKCDPGFILNGSDKRSQENKQWNGNEPSCIPVSCGQPN 2578
.....2950.....2960.....2970.....2980.....2990.....3000

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      * : * : * : * : * : * : * : * : * : * : * : * : * : *
Pavo_muticus      VLENGQVTGEEYTFQKHIEYSCNEGFVLDGDRSRVCLTNGSWSGITPVCKAVTCVPVPLPL 2894
Pavo_cristatus    VLENGQVTGEEYTFQKHIEYSCNEGFVLDGDRSRVCLTNGSWSGITPVCKAVTCVPVPLPL 2894
Gallus_gallus     VLENGQVAGEEYTFQKRIEYSCNEGFVLDGDRSRVCLTNGSWSGITPVCKAVTCVPVPLPL 2894
Anas_platyrhynchos VLENGQVSGEEYTFQRHAEYSCNEGFLLDGDERSRVCLANGSWSGIAPVCKAVTCVPLPL 2899
Chelonia_mydas    VLENGQVVGDEYTFQKHMEYSCNEGFQHLGDERSRVCLANGSWSGITPVCKSIRCTVPLPL 2670
Mus_musculus      VPTNGRVKGEEYTFQKEITYSCREGFILEGARSRVCLTNGSWSGATPSCMPVRCAPPQV 2894
Rattus_norvegicus VPTNGQVTGEEYTFQKEIAYSCGEGFILEGARSRVCLTNGSWSGITPSCVPVRCAPPQV 3032
Bos_taurus        SSANGQVKGEEYTFQKEVQYTCNTGFLLEGASSRVCLADGWSGNTPICVVRCAPPQV 2898
Equus_caballus    ISANGQVKGDEYTFQKEIYTCNVGFFLEGARSRVCLANGTWSGTTPICVVRCAPPQV 2896
Canis_lupus_familiaris ISANGQVKGNYTFQKEIYTCNVGFFLEGARSRVCLADGHSWGTTPICVPVRCVTPPQV 2895
Homo_sapiens      VSANGQVRGDEYTFQKEIYTCNEGFLLLEGARSRVCLANGSWSGATPDCVPVRCATPPQL 2897
Pan_troglodytes   VSANGQVRGDEYTFQKEIYTCNEGFLLLEGARSRVCLANGSWSGATPDCVPVRCATPPQL 2897
Macaca_mulatta    VLANGQVRGDEYTFQKEIYTCNEGFLLLEGARSQACLANGSWSGATPDCVPVRCATPPQL 2897
Callithrix_jacchus VSANGQVRGDEYTFQKEIYTCNEGFLLLEGARSRVCLANGSWSGATPDCVPVRCATPPQL 2896
Rhinatrema_bivittatum TPKNHGVIGNEYTFQKHIEYSCNEGFLLDGLAICLANGSWSTVTPVCTPIKCVPPVNI 2893
Xenopus_tropicalis MVINGKVIGNEYTFQKHIEYSCNEGFLLYGEIIRTCLENGNSWGTTPSCLAITCKISTTV 2899
Latimeria_chalumnae SPSNGQVGGEDYTFQKQVEYSCNEGFLLLEGERSICLENGSWSGVAPVCRPILCPTPSNV 2638
.....3010.....3020.....3030.....3040.....3050.....3060

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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	.*.:::*.**.*:**.*.*.*.*	
<i>Pavo muticus</i>	PNGRVSGSDFGFRKEVQYHCNEGYNLQGVSTVTTCQSDGNWWDSEAPHCEPVICGPPEDISH	2954
<i>Pavo cristatus</i>	PNGRVSGSDFGFRKEVQYHCNEGYNLQGVSTVTTCQSDGNWWDSEAPHCEPVICGPPEDISH	2954
<i>Gallus gallus</i>	PNGRMSGSDFGFRKEVQYHCNEGYNLQGVSTLTTCQSDGNWWDSEAPRCEPVICGPPEDISH	2954
<i>Anas platyrhynchos</i>	ANGRIIGSDFGFRKEVQYDHCNEGYNLQGA STLTCQSDGTWWDSEAPRCEPVICGPPEDISH	2959
<i>Chelonia mydas</i>	PNGEIIIGSEYGVGKEIYQRCSEGYTLHGAFILTCQADGTWWDREAPYCEPVKCGPPEDISH	2730
<i>Mus musculus</i>	PNGVADGLDYGFKKEVAFHCLEGYVLQGA PRLTCQSNGTWDAEVPVCKPATCGPPADLPQ	2954
<i>Rattus norvegicus</i>	ANGVTDGLDYGFKKEVTFHCLEGYVLQGT PKLTCQSNGTWDAEVPICKPATCGPPADLPQ	3092
<i>Bos taurus</i>	ANGVMDGLDYGFGKEVVFHCQDGYALHGAPKLTCSNGNWDAAQVPFCKPVNCSPPEDLDR	2958
<i>Equus caballus</i>	ANGAMDGLDYGFGKEVVFHCQEGYVLHGAPKLTCSQSDGTWDAEVP LCKPVNCGPPEDLAH	2956
<i>Canis lupus familiaris</i>	ANGVMDGLDYGFGKEVVFHCQDGYMLHGAPKLTCSQSDGNWDAEFP LCKPVNCGPPEDPPH	2955
<i>Homo sapiens</i>	ANGVTEGLDYGFMKEVTFHCHEGYILHGAPKLTCSQSDGNWDAEIP LCKPVNCGPPEDLAH	2957
<i>Pan troglodytes</i>	ANGVMEGLDYGFMKEVTFHCHEGYILHGAPKLTCSQSDGNWDAEIP LCKPVNCGPPEDLAH	2957
<i>Macaca mulatta</i>	ANGVMEGLDYGFMKEVAFHCHEGYMLHGASKLTCSQSDGNWDAEVP LCKPVNCGPPEDLAH	2957
<i>Callithrix jacchus</i>	ADGVMEGLDYGFMKEVAFHCHEGYMLHGAPKLTCSQSDGNWNAEIP LCKPVNCEPPEDLAH	2956
<i>Rhinatrema bivittatum</i>	SNGEVIGSGYDFGQCAQYHCNEGYYILHGLPKLTCAQDGTWDAKFPPYCERVNCGPPEDISH	2953
<i>Xenopus tropicalis</i>	NNGEVTGTCEGVGKEILYRCNHGYKMQGTPKLTCLNDGTWNSNAPLCEPIHCEPPEDISN	2959
<i>Latimeria chalumnae</i>	LNGEVIGSEFSYRKEIYQRCREGYVLGEP SKLTCQVDGMWSDKAPHCELVNCGPPEDISH	2698
3070.....3080.....3090.....3100.....3110.....3120	

	..*.:.***.*::*..*:*..*.***.**.**::*	
Pavo_muticus	GFLNGSEFTYGEYAAQYVCFPGYELHGNPLRQCLSNGSWSGSLPSCLPCECPAPQVQNGVV	3014
Pavo_cristatus	GFLNGSEFTYGEYAAQYVCFPGYELHGNPLRQCLSNGSWSGSLPSCLPCECPAPQVQNGVV	3014
Gallus_gallus	GFLNGSDFTYGEYAAQYVCFPGYELHGNPLRQCLSNGSWSGSLPSCLLCECPAPQVQNGVV	3014
Anas_platyrhynchos	GFLNGSDFTYGEFAQYVCFPGYELHGNPSRQCLSNGSWSGSLPSCLPCECPAPQVQNGVV	3019
Chelonia_mydas	GFLNSSGFYSYGEYVCFPGYELRGNPLRQCLSNGSWSGSLPSCLPCECPTPLIQNGVV	2790
Mus_musculus	GFPNGFSFYHGGHIIQYQCFGTGYKLHGNPSRRCLPNGSWSGSSPSCLP CRCSTPIIQGGTI	3014
Rattus_norvegicus	GFPNGFSFFHGGHIIQYQCFGTGYKLHGNPSRRCLPDGSWSGSTPSCLPCTCSTPIIQGGTV	3152
Bos_taurus	GFPNGFSLYRGGQIEYQCFPGYKLHGSPSRKCLSNSSWSGSPSPSCLPCKCSPPTIQSGAV	3018
Equus_caballus	GFPNGFSFSHGGQIQYQCFSGYKLHGSPSRKCLSNGSWSGSPSPSCLP CRCSTPVIQNGAV	3016
Canis_lupus_familiaris	GFPNGFSFYHGGHIIQYQCFPGYKLYGSPSRRLCLSDGSWSGSPSPSCLP CRCSTPVIQNGAV	3015
Homo_sapiens	GFPNGFSFIHGGHIIQYQCFPGYKLHGNSRRCLSNGSWSGSPSPSCLP CRCSTPVIIEYGTV	3017
Pan_troglodytes	GFPNGFSFIHAGHLIQYQCFPGYKLHGNSRRCLSNGSWSGSPSPSCLP CRCSTPVIIEYGTV	3017
Macaca_mulatta	GFPNGFSFIHGGHIIQYQCFPGYKLHGNSRRCLSNGSWSGSPSPSCLP CRCSTPVIIEYGTV	3017
Callithrix_jacchus	GFPNGFSFIHGGHIIQYQCFPGYKLHGNSRRCLSNGSWSGSPSPSCLP CRCSTPVIQYGTV	3016
Rhinatrema_bivittatum	AFLNGSNFYSDEYIRYVCFPGYELHGSPQRQCLSNGLWSGKPPCLPCTCPAPIIQNGVI	3013
Xenopus_tropicalis	GYLNSSNFKNYIYHVCFPGYEMHGSSTRQCLANGAWSGSPPTCLPCECPTPVVQNGIM	3019
Latimeria_chalumnae	GYLNGSFENYADSVQYVCFPGYELEGNAIRKCLLSGTWSGIPSPCQLCECSPPIQNGLA	2758
3130.....3140.....3150.....3160.....3170.....3180	

	. * : ** : . * : * : * * : . * : : . : ** * * ** * : * : . .	
Pavo_muticus	LGEDFSCGKSAQFOCLEGFKLLGPSEITCETAGRWSAGFPRCGQISCGSPPIIPTNTFING	3074
Pavo_cristatus	LGEDFSCGKSAQFOCLEGFKLLGPSEITCETAGRWSAGFPRCGQISCGSPPIIPTNTFING	3074
Gallus_gallus	LGEDFSCGKSAQFOCLEGFKLLGPSEITCETAGKWSAGFPRCGQISCGSPPIIPTNTFING	3074
Anas_platyrhynchos	LGEDFSCGKSAQFOCLEGFKLLGPSRITCEAAGRWSAGFPRCGQISCGSPPIIPTNTFING	3079
Chelonia_mydas	IGQDFRCGKSAQFOCLEGFKLLGPSELSCAAGKWSSAFPHCRGISCGSPPIIPNAFISG	2850
Mus_musculus	NATDLGCGKTVQIECFKGFKLLGLPEITCDANGOWS-DVPLCEHAQCGPLPTIPNAIVLE	3073
Rattus_norvegicus	NATDLGCGKTVQIECFKGFKLLGLPEITCDANGOWS-DFPLCEHADCGPLPTVPNGIVIK	3211
Bos_taurus	NGTDFSCGKAAQIRCFKGFKLLGLSEITCEADGOWSSDFPRCEHPSCGSPPTIPNAFIVE	3078
Equus_caballus	NGTDFGCGKAAQIQCFKGFKLLGLSEITCEANGOWSSGFPRCEHASCGSLPVPINAFITE	3076
Canis_lupus_familiaris	NGTDFGCGKVAQIQCFKGFKLHGVSEITCEANDOWSSGFPRCEHTSCGSPPVIPNAFISE	3075
Homo_sapiens	NGTDFDCGKAARIQCFKGFKLLGLSEITCEADGOWSSGFPHCEHTSCGSLPMIPNAFISE	3077
Pan_troglodytes	NGTDFDCGKAARIQCLKGFKLLGLSEITCEANGOWSSGFPHCEHTSCGSLPMIPNAFISE	3077
Macaca_mulatta	NGTDFDCGKAARIQCFKGFKLLGLSEITCEANGOWSSGFPHCEHTSCGSPLIPNAFISE	3077
Callithrix_jacchus	NGTDFDCGKAARIQCFKGLKLLGLSEITCEANGOWSSGFPHCEHTSCGSLPMIPNAFISE	3076
Rhinatrema_bivittatum	IGEDFSCGEVVTFOCHEGFKLLGPTISIKCEAAGKWSSGFPHYCGRISCGSAPSIPNAFING	3073
Xenopus_tropicalis	SGDDFTCGHSVSIKCREGFKLLGSSELTCSAGKWSSGFPHCKVPCGPPPSIPNAFING	3079
Latimeria_chalumnae	IGKDFSCGGLIKFOCHEGFKLLGPSEVICTGSRWSSGFPHYCGKISCGLPPPIIPNAVFNG	2818
3190.....3200.....3210.....3220.....3230.....3240	

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      .   :::: :.* .*: ::   .:* *   .   .*:.* * : :*** **.: **   ..
Pavo_muticus      SSSADENTVIYTCCLTGFVMRGSPELTCTVETGVWKKPYPSCELLSCGPPPSVPNAEVLGNT 3134
Pavo_cristatus    SSSADENTVIYTCCLTGFVMRGSPELTCTVETGVWKKPYPSCELLSCGPPPSVPNAEVLGNT 3134
Gallus_gallus     SSSADENTVIYTCCLTGFVMRGSPELTCTVETGVWKKPYPSCELLSCGPPPSVPNAEVLGNT 3134
Anas_platyrhynchos SSSADENTIIYTCCLTGFVMRGSPELTCTVETGVWKKPYPSCELLSCGPPPSVPNAEVLGNT 3139
Chelonia_mydas    SSSVDENAVIYNCITGFVIOGRPELTCTDKGVWSEPYPLCEQLSCGPPPSIPNAVAVGGEA 2910
Mus_musculus      GSLSEDNVVTYSCRPGYTMQGSSDLICTEKAIWSQPYPTCEPLSCGPPPTVANAVATGEA 3133
Rattus_norvegicus GSPSEDNVVTYSCRPGYIIQGSSDLICTEKGIWSEPYPTCEPVS CGPPPTVANAVATGEA 3271
Bos_taurus        RGSLEENVITYITCKPGYVIQGSSDLICTEKGTWSQPYPVCEPLSCGPPPSVANAVATGEA 3138
Equus_caballus    SGSLEENVITYINCRPGYVIQGSSDLICMEKGMWSQPHPVCEPVS CGPPPSVANAVATGEA 3136
Canis_lupus_familiaris SGSLEENVITYINCRSGYVIQGSSDLVCTEKGTWSQPYPACEPLSCGSPPSVANAVATGEA 3135
Homo_sapiens      TSSWKENVITYISCRSGYVIQGSSDLICTEKGVWSQPYPVCEPLSCGSPPSVANAVATGEA 3137
Pan_troglodytes   TSSWKENVITYISCRSGYVIQGSSDLICTEKGVWSQPYPVCEPLSCGSPPSVANAVATGEA 3137
Macaca_mulatta    SSSWKENVITYISCRSGYVIQGSSDLICTEKGVWSQPYPVCEPLSCGPPPSVANAVATGEA 3137
Callithrix_jacchus SSSWKENVITYISCRSGYVIQGSSDLICTEKGVWSQPYPVCEPLSCGPPPSVTNAVATGEV 3136
Rhinatrema_bivittatum SSSLDENAILYNCATGYVLQGSSELVCTKKGTWSEYPNCELISCGPPPSVLNALALGDL 3133
Xenopus_tropicalis SSSTDEDAIRYNCVAGYIMQKSELLCTKEGVWSKPYPNCQLLSCGLPPSVLNAVLIADS 3139
Latimeria_chalumnae SSPLYENAVTFS CVAGYIMQGSSELICTEGLWSEYPACEPISCGPPPLPNAEVI GNS 2878
.....3250.....3260.....3270.....3280.....3290.....3300

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      ::: * .. ** :*: :   .   . * :** *   * *   * :   .   :   ::
Pavo_muticus      HTYGSKVQYRCLEGYTMVTEVDVCTCOEDGQWSPQSISCCPRKCSLPGNITNVVLGDNF 3194
Pavo_cristatus    HTYGSKVQYRCLEGYTMVTEVDVCTCOEDGQWSPQSISCCPRKCSLPGNITNVVLGDNF 3194
Gallus_gallus     HTYGSKVQYRCLEGYTMVTEVDVCTCOEDGQWSPQSISCCPRKCSLPGNITHVIVLGDNF 3194
Anas_platyrhynchos HTYGSKVQYRCLEGYTMVTEVDVCTCOEDGQWSPQSISCCPRKCPPLGNITHVIVLGDNF 3199
Chelonia_mydas    HTYGSRVQYRCLEGYVMEETMDTCTCOEDGHWSPKSISSCLTKCPVPTNITNVIISGDEF 2970
Mus_musculus      HTYESKVKLRCLEGYVMDSDTDTFTCQDGHVWPERITCSPKKCPVPSNMTIRIRFHGDDF 3193
Rattus_norvegicus HTYESKVKLRCLEGYVVDTDITFTCQDGRWFFPERINCSPKTCPVPSNMTIRIRVHGDDF 3331
Bos_taurus        HTYESQVRLRCLEGYVMDTVIDTFTCQKDGHWFFPETIISCPKKCPPLGNITHVILVHGDDF 3198
Equus_caballus    HTYESKVKLRCLEGYVMDTIDTFTCQKDGWLWFFPETIISCPKKCPPLPANITHLLIHGDDF 3196
Canis_lupus_familiaris HVYESKVKLRCLEGYVMDTIDTFTCQKDGWRWFFPERISCSPPKKCPPLPANIAHILVQGDDF 3195
Homo_sapiens      HTYESEVKLRCLEGYTMDDTIDTFTCQKDGWRWFFPERISCSPPKKCPPLPENITHILVHGDDF 3197
Pan_troglodytes   HTYESEVKLRCLEGYTMDDTIDTFTCQKDGWRWFFPERISCSPPKKCPPLPENITHILVHGDDF 3197
Macaca_mulatta    HTYESKVQLRCLEGYTMDDTIDTFTCQKDGWRWFFDRISCSPPKKCPPLPENITHILVHGDDF 3197
Callithrix_jacchus HTYESKVKLRCLEGYTMDDTIDTFTCQKDGWRWFFPESISCSPPKKCPPLPENITHILVHGDDF 3196
Rhinatrema_bivittatum HTYGSKVQFRCLLEGYVMNSEDETRTCLEDGQWSSSESISCTPRKCSLPTNTVNIIVSHTEF 3193
Xenopus_tropicalis YTYGSTANYRCQDGYVMHQDVSSKTCLEDGWSWSPGDIVCPKKCLLQSTLIQIKNDETEY 3199
Latimeria_chalumnae YTFGSKVQYRCLEGYVLESETDASVCLQDGSWSLQGI VCGPRMCLLPNITNLVVTSTEY 2938
.....3310.....3320.....3330.....3340.....3350.....3360

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      :.   :::: * **:   * . *.* . * * * ..:   * *: ** * .   ** :.*   .
Pavo_muticus      TVSANITLSCVEGYTLMGASTSTCKESGVMMPEFSDDICIPVSCGIPESPEHGFVVGTKF 3254
Pavo_cristatus    TVSANITLSCVEGYTLMGASTSTCKESGIWMPEFSDDICIPVSCGIPESPEHGFVVGTKF 3254
Gallus_gallus     TVSTNITLSCVEGYTLVGASTSTCKESGVMMPEFSDDICIPVSCGIPESPEHGFVVGTKF 3254
Anas_platyrhynchos TVNANITLSCVEGYTLVGASTSTCKESGVWVPVFSDDICIPVSCGTPESPEHGFVVGTKF 3259
Chelonia_mydas    TVNKSITLSCTEGYTLGASASTCQHNGSWAPSFSDDICVPVSCGKPETPEHGTVVGASY 3030
Mus_musculus      QVNRQVSVS CAEGFTHEGVNWTSTCQPDGTWEPPFSDES CIPVVCQHPESPA HGSVVGNKH 3253
Rattus_norvegicus QVNRQVSVSCTEGFTYDGADRSTCQPDGTWEPPPLSEESCIPVVCQHPESPA HGFVVGSEY 3391
Bos_taurus        SVNKQVSVS CVEGYTYEGVNTSTCQLDGTWEPPFSDESCSPISCGKPESPEHGFVVGSEY 3258
Equus_caballus    SVNKQVSVS CAEGYTFEGVNTSTCQPDGTWEPPFSDESCSPVSCGEPESPEHGFVVGSEY 3256
Canis_lupus_familiaris SVNKQVSVS CAEGYTYEGVNTSTCQLDGTWEPPFSDESCSPVSCGKPESPEHGFVVGSKY 3255
Homo_sapiens      SVNKQVSVS CAEGYTFEGVNTSTCQLDGTWEPPFSDESCSPVSCGKPESPEHGFVVGSKY 3257
Pan_troglodytes   SVNKQVSVS CAEGYTFEGVNTSTCQLDGTWEPPFSDESCSPVSCGKPESPEHGFVVGSKY 3257
Macaca_mulatta    SVNKQVSVS CAEGYTFEGVNTSTCQLDGTWEPPFSDESCSPVSCGKPESPEHGFVVGSKY 3257
Callithrix_jacchus SVNKQVSVSCEEGYTFEGVNTSTCQLDGTWEPPFSDESCSPVSCGKPESPEHGFVVGSKY 3256
Rhinatrema_bivittatum TINKTITISCTEGYVISGTSTSTCQPDGWSWAPPFSDDVCSPVSCGKPEPLQHGILLGTRY 3253
Xenopus_tropicalis DINKTITIVCKEGYTLTGPTSTCMNDGNWIPEVNNICTPVSCGEPAAP EHGIVLGTRY 3259
Latimeria_chalumnae TVNKTVSLSCAEGYRLSGSNI STCQIDGWSWIPFS DASCTPVSCGKPDPEHGVIGTISY 2998
.....3370.....3380.....3390.....3400.....3410.....3420

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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      : . : *::: *:::. * : * : * :
Pavo_muticus      NYKDVVLYKCDSGYELQGDTERTCQEDRLWSGSVPTCRRVSCGPPEVIKNGSVQGEFFLF 3314
Pavo_cristatus    NYKDVVLYKCDSGYELQGDTERTCQEDRLWSGSVPTCRRVSCGPPEVIKNGSVQGEFFLF 3314
Gallus_gallus     SYKDVVLYKCDPGYELQGDTERTCQEDKLWSGSVPTCRRVSCGPPEVIENGSVQGEFFLF 3314
Anas_platyrhynchos NYKDVVLYKCDPGYELQGDTERTCQEDKLWSGTVPACR----- 3297
Chelonia_mydas    SYKDAILYQCNAAGYELQGDATERICQGNKLWSGAAPVCRRIISCGPPESIENGSVHGEEFFLF 3090
Mus_musculus      SFGSTIVYQCDPGYKLEGNRERICQENRQWSGEVAVCR----- 3291
Rattus_norvegicus SFGSTVVYQCDPGYELEGNRERVCOENRQWSGRVAVCR----- 3429
Bos_taurus        NFESTITYHCETGYELEGSRRERVCOENGQWTGGVATCK----- 3296
Equus_caballus    TFESTVIYQCEPGYELEGNRGERTCOENSQWSGGVATCK----- 3294
Canis_lupus_familiaris SFESTVIYQCETGYELQGNKERVCKNRRWSGEVATCK----- 3293
Homo_sapiens      TFESTIIYQCEPGYELEGNRERVCOENRQWSGGVAICK----- 3295
Pan_troglodytes   TFESTIIYQCEPGYELEGNRERVCOENRQWSGGVAICK----- 3295
Macaca_mulatta    TFESTIIYQCEPGYELEGNRERVCOENRQWSGGVAICK----- 3295
Callithrix_jacchus SFESTIIYQCEPGYELEGNRERICQENRQWSGAVAMCK----- 3294
Rhinatrema_bivittatum LYKDAILYQCNTGYELQGEAEQTCQHNKLWSGKKPECRRIISCGPPEFLONGIMOGSOYLF 3313
Xenopus_tropicalis LFKDSVLYQCNAAGFEIHGPTERVCCINGLWSDVEPQCKKISCHPPEPLENGVIHGAGYLF 3319
Latimeria_chalumnae NFRDDVLYQCNVGYELQGNVERICQANKLWSGTQPECKRISCGSPGEIEHGYIQAKGFLL 3058
.....3430.....3440.....3450.....3460.....3470.....3480

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Pavo_muticus      GSEAFYSCDPGFELQGPSRRICHVDKKWSPSAPLCRRRIACGLHPSVEKAEAISTGNTYRS 3374
Pavo_cristatus    GSEAFYSCDPGFELQGPSRRICHVDKKWSPSAPLCRRRIACGLHPSVEKAEAISTGNTYRS 3374
Gallus_gallus     GSEAFYSCDPGFELQGPSRRICHVDKKWSPSAPVCRRIITCGLPPSIEKAEAISTGNTYRS 3374
Anas_platyrhynchos -----RITCGLHPSVEKAEAISTGSTYRS 3321
Chelonia_mydas    GDEVLYSCNQGFELQGPSRRICHVNRRWSPSAPSCMRITCEPHPSIENAVSMASGSAYRS 3150
Mus_musculus      ----- 3291
Rattus_norvegicus ----- 3429
Bos_taurus        ----- 3296
Equus_caballus    ----- 3294
Canis_lupus_familiaris ----- 3293
Homo_sapiens      ----- 3295
Pan_troglodytes   ----- 3295
Macaca_mulatta    ----- 3295
Callithrix_jacchus ----- 3294
Rhinatrema_bivittatum GDEVITYSCNQGFELQGPSRRICHVNKQWSPSAPACVSVSCEPHSSVENALSIATGNVYRS 3373
Xenopus_tropicalis EDELHYSCNHGFELNGPSRRICHIDKQWIPPPPTCVSVITCDLPIYENAVYTSTGNTYTH 3379
Latimeria_chalumnae GDDVQYNQYPGFQLQGSRRKCKQANKQWSSLAPVCVRVSCGPHPSVEHAVSIATGNTFKS 3118
.....3490.....3500.....3510.....3520.....3530.....3540

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      : *          *:* * * *
Pavo_muticus      NVTFCVSSGYHLVGPQNITCLANGSWSKPLPLCEETRCKLPLPLNGKAIYENNTVGSTI 3434
Pavo_cristatus    NVTFCVSSGYHLVGPQNITCLANGSWSKPLPLCEETRCKLPLPLNGKAIYENNTVGSTI 3434
Gallus_gallus     NVTFCVSSGYHLVGPQNITCLANGSWSKPLPLCEETRCKLPLSLLNGKAIYENNTVGSTV 3434
Anas_platyrhynchos NVTFCVSAGYHLVGPQNITCLTNGSWSKPLPSCEETRCKVPLSLLNGKAIYENNTVGSTI 3381
Chelonia_mydas    NVTYVCNFGYHLVGPQNITCLANGTWSKPFPSCEETRCKALVSLANGKAIYENNTVGSRA 3210
Mus_musculus      -----ENRCETPAEFPNGKAVLENTTSGPSL 3317
Rattus_norvegicus -----ESRCEAPAEFPNGKAVLENTTSGPSL 3455
Bos_taurus        -----KIMCEAPLKFLNGKAEVENTTAGPSV 3322
Equus_caballus    -----KSKCESPLGFLNGKAEIENTTAGPSV 3320
Canis_lupus_familiaris -----KTRCEAPLGFLNGKAEVENTTAGLRV 3319
Homo_sapiens      -----ETRCETPLEFLNGKADIENRTTGPNV 3321
Pan_troglodytes   -----ETRCETPLEFLNGKADIENRTTGPNV 3321
Macaca_mulatta    -----ETRCCEAPLEFLNGKADIENRTTGPNV 3321
Callithrix_jacchus -----ETRCCEAPLEFLNGKADVENTTGPSPV 3320
Rhinatrema_bivittatum NVTFCVNFHGLVGPQNITCLANGTWSKPFYCKETTCAAPALQVVGKATYENNTVGSRV 3433
Xenopus_tropicalis NITFTCNFGYHLVGPVHVRCLVNGTWSKPLPQCKETRCEVPQOPENGHAEYENNTVGSTV 3439
Latimeria_chalumnae NVSIIICHFQYQLVGPHNITCLADGTWARPPVPCDEVTCCEAPSWLVDGRAEYGNLTVGSRV 3178
.....3550.....3560.....3570.....3580.....3590.....3600

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Pavo_muticus	AYFCESGYSLGEPTAECTRDGRWSNPLPLCKPNPCVPFFIIPENALLSEVDFYVGVQNV	3494
Pavo_cristatus	AYFCESGYSLGEPTAECTRDGRWSNPLPLCKPNPCVPFFIIPENALLSEVDFYVGVQNV	3494
Gallus_gallus	AYFCKSGYSLGEPTAECTRDGRWSNPLPLCKPNPCVPFFIIPENALLSEVDFYVGVQNV	3494
Anas_platyrhynchos	AYFCERGYSLEGEPAECTRDGRWSNPLPLCKPNPCVPFFIIPENALLSEVDFYVGVQNV	3441
Chelonia_mydas	AYYCDRGYSLEGEPIAECTGTGSWSHPIPLCKPNPCVPFFIIPENARLSETEFYVGVQKVS	3270
Mus_musculus	LFSCHRGYTLGGSPEAHCTANGTWNHLTPLCKPNPCVPFVIPENAVLSEKEFYVDQNV	3377
Rattus_norvegicus	LFSCHRGYTLGEPPEAHCTANGTWSHLAPLCKPNPCVPFVIPENALLSEREFYVNVQNV	3515
Bos_taurus	IYSCNRGYSLGGAPEASCTENGTSWHPVPLCKPNPCVPFVIPENAVLSEKEFYVDQNV	3382
Equus_caballus	VYSCSRGYSLGGAPEAYCTENGTSWSPVPLCKPNPCVPFVIPENALLSEKEFYVDQNV	3380
Canis_lupus_familiaris	VYSCNRGYSLGGAPEIHTCTGHGVWSHPPLCKPNPCVPFVIPENAVLSEKEFYVDQNV	3379
Homo_sapiens	VYSCNRGYSLGGSSEAHCTENGTSWHPVPLCKPNPCVPFVIPENALLSEKEFYVDQNV	3381
Pan_troglodytes	VYSCNRGYSLGGSSEAHCTENGTSWHPVPLCKPNPCVPFVIPENALLSEKEFYVDQNV	3381
Macaca_mulatta	VYSCNRGYSLGLELSEAHCTENGTSWHPVPLCKPNPCVPFVIPENALLSEKEFYVDQNV	3381
Callithrix_jacchus	VYSCNRGYSLGGSSEAHCTENGTSWHPVPLCKPNPCVPFVIPENALLSEKEFYVDQNV	3380
Rhinatrema_bivittatum	VYSCSEGFSLGESLAECTENGTSWSHPIPLCKPNPCVPFFIIPENAVLSETEFYVGVQNV	3493
Xenopus_tropicalis	RYQCQNGYTLGEDLAECTNGTSWHPVICKANPCVPFFIIPENAILTETDFYVGVQKVS	3499
Latimeria_chalumnae	EYYCDGNYDLEGESAECLNGSWSHPVPLCRPKACIPSGIPENAVLSETFYVGVQKVS	3238
3610.....3620.....3630.....3640.....3650.....3660	

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Pavo_muticus	IRCREGYQLKGQAVITCNADETWIPTTAKCEKISCGPPAHTENAFIRGSFYQYQDITITYS	3554
Pavo_cristatus	IRCREGYQLKGQAVITCNADETWIPTTAKCEKISCGPPAHTENAFIRGSFYQYQDITITYS	3554
Gallus_gallus	IRCREGYQLKGQAVITCNADETWIPTTAKCEKISCGPPAHIENTAFIRGSFYQYQDMITYS	3554
Anas_platyrhynchos	IRCREGYQLKGQAVITCNADETWIPTTAKCEKISCGPPAHIENTALHGSFYQYQDVTITYS	3501
Chelonia_mydas	IKCREGYQLKGQAAMTCNPDETWITPARAKCEKISCGPPAHIENTALARGTFYQYQDMITYS	3330
Mus_musculus	IKCREGFLLKGNQVITCSPDETWITNARCEKISCGPPSHVENAIARGVYQYQDMITYS	3437
Rattus_norvegicus	IKCREGFLLKNGIITCNPDETWITNARCEKISCGPPTHVENAIARGVHYQYQDMMVTFS	3575
Bos_taurus	IKCREGFLLRGQSITCNPDETWITSAKCEKISCGPPTHVENAIARGVHYQYQDVTITYS	3442
Equus_caballus	IKCREGFLLQGQGVITCNPDETWITSAKCEKISCGPPTHVENAIARGVHYQYQDMITYS	3440
Canis_lupus_familiaris	IKCREGFLLQGWGIITCNPDETWITVNAKCEKISCGPPTHVGNAIARGIHYQYQDMITYS	3439
Homo_sapiens	IKCREGFLLQGHGIITCNPDETWITSAKCEKISCGPPAHVENAIARGVHYQYQDMITYS	3441
Pan_troglodytes	IKCREGFLLQGHGIITCNPDETWITSAKCEKISCGPPAHVENAIARGVRYQYQDMITYS	3441
Macaca_mulatta	IKCREGFLLQGGIITCNPDETWITSAKCEKISCGPPAHVENAIARGVHYQYQDMITYS	3441
Callithrix_jacchus	IRCREGFLLRGEIITCNPDETWITSAKCEKISCSPPAHVENAIARGVHYQYQDMITYS	3440
Rhinatrema_bivittatum	LQCGKGYRLQGLAVMTCNPDETWITSAKCEKISCGPPRHIENTFIRGTFHQYQDMMVTYS	3553
Xenopus_tropicalis	IKCRKGYQLKGQAVITCNADETWITDANVCKEIKISCGPPHTIONGILRGMYHQFGDVTITYS	3559
Latimeria_chalumnae	IKCGKGYRLQGGAVINCCTDQNWITRTAKCEKISCGPPRHVANSLLRGAFYQYQDVTITYS	3298
3670.....3680.....3690.....3700.....3710.....3720	

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Pavo_muticus	CYSGYMLEGPLRSICLNGTWTPPTCKAVCRFPCCNGGVCERPACSCPDGWMGRLCEE	3614
Pavo_cristatus	CYSGYMLEGPLRSICLNGTWTPPTCKAVCRFPCCNGGVCERPACSCPDGWMGRLCEE	3614
Gallus_gallus	CYSGYMLEGPLRSICLNGTWTPPTCKAVCRFPCCNGGVCERPACSCPDGWMGRLCEE	3614
Anas_platyrhynchos	CYSGYMLEGPLRSICLNGTWTPPTCKAVCRFPCCNGGVCERPACSCPDGWMGRLCEE	3561
Chelonia_mydas	CYSGYVLEGLSLRSVCLNGTWTKPPACKAICRFPCCNGGVCERPACSCPEGWMGRLCEE	3390
Mus_musculus	CYSGYMLEGLSLRSVCLNGTWTPSPVCRAVCRFPCCNGGVCORPACSCPDGWMGRLCEE	3497
Rattus_norvegicus	CYSGYMLEGLSLRSVCLNGTWTPPPICRAVCRFPCCNGGVCORPACSCPDGWMGRLCEE	3635
Bos_taurus	CYSGYMLEGLSLRSVCLNGTWTPSPVCRAVCRFPCCNGGICORPACSCPDGWMGRLCEE	3502
Equus_caballus	CYSGYMLEGLSLRSVCLNGTWTPPICRAVCRFPCCNGGVCORPACSCPDGWMGRLCEE	3500
Canis_lupus_familiaris	CYSGYMLEGLSLRSICLNGTWTPPICRAVCRFPCCNGGICORPACSCPDGWMGRLCEE	3499
Homo_sapiens	CYSGYMLEGFLRSVCLNGTWTPPICRAVCRFPCCNGGICORPACSCPEGWMGRLCEE	3501
Pan_troglodytes	CYSGYMLEGLSLRSVCLNGTWTPPICRAVCRFPCCNGGICORPACSCPEGWMGRLCEE	3501
Macaca_mulatta	CYSGYMLEGLSLRSVCLNGTWTPPICRAVCRFPCCNGGICORPACSCPEGWMGRLCEE	3501
Callithrix_jacchus	CYSGYMLEGLSLRSICLNGTWTPPICRAVCRFPCCNGGICORPACSCPEGWMGRLCEE	3500
Rhinatrema_bivittatum	CYSGYMLEGGMRSVCLDNQTWSQPPVCRAVCRFPCCNGGVCORPACSCPEGWMGRLCEE	3613
Xenopus_tropicalis	CYSGYMLLGSFRSVCLNGTWIAPPSCAVCRFPCCNGGVCERPACSCPKGWMGRLCEE	3619
Latimeria_chalumnae	CYSGYMLEGSTRSVCLNGTWITLPTCKAVCRFPCKNGGVCBPNACSCPEGWMGHLCEE	3358
3730.....3740.....3750.....3760.....3770.....3780	

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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PICILPCLNGGRCVAPYQCDCPPGWTGSRCHTAVCQSPCLNGGKCIRPNRCYCPSSWTGH 3674
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PICILPCLNGGRCVAPYQCDCSPGWTGSRCHTAVCQSPCLNGGKCVRPNRCHCLSAWTGH 3562
PICILPCLNGGRCVAPYQCDCPPGWTGSRCHTAVCQSPCLNGGKCVRPNRCHCLSSWTGH 3560
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PICILPCLNGGRCIGPYECECPTGWTGARCHIAVCRFSCCLNGGKCVRPNRCHCPSSWGP 3418
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DCSRKRKAGFYHF--- 3687
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DCSRKRKAGFYPF--- 3634
DCTRKRKAGFYPF--- 3463
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DCARRRRPGFYPF--- 3686
DCSRKRKHAFYPFSSRK 3695
DCSRKRKHAFYFI--- 3431
.....3850.....

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