

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/NRPData Date: Tue Feb 14:10:47 2022

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** . * . : * . : ** . * : * * : * : * : * : * :
Pavo_muticus      MDTFLLAWGFLGLCLPSSGGAETAQQCGGRLNSKDAGYITSPGYPN DYPSHQNC EWVIY 60
Pavo_cristatus    MDTFLLAWGFLGLCLPSSGGAETAQQCGGRLNSKDAGYITSPGYPN DYPSHQNC EWVIY 60
Gallus_gallus     MDTFLLAWGFLGLCLPSSGGAETAQQCGGRLNSKDAGYITSPGYPN DYPSHQNC EWVIY 60
Chelonia_mydas    MDTLPLVWGFLALCLAGSGVLGEAVQSCGGRLNSKDAGYITSPGYPN DYPSHQNC EWLIY 60
Mus_musculus      MDMFPLTWVFLALYFSGHEVRSQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Rattus_norvegicus MDMFPLTWIFLALYFSGHKVRSQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWVYV 60
Homo_sapiens      MDMFPLTWVFLALYFSGHEVRGQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Pan_troglodytes   MDMLPLTWVFLALYFSRHQVRGQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Macaca_mulatta    MDMFPLTWVFLALYFSRHQVRGQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Callithrix_jacchus MDMFPLTWVFLALCFSRHQVRGQSDPPCGGRLNSKVAGYITSPGYPN DYPSHQNC EWIVY 60
Heterocephalus_glaber MDLLPLTWVFIALYFSGHEVRGQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Canis_lupus_familiaris MDMFPLTWVFLALYFSGCEVRGQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Equus_caballus    MDMFPLSWVFLALCFSGHEVRGQDPPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Bos_taurus        MDMFPLTWIFLALYFSGHEVRGQADQPCGGRLNSKDAGYITSPGYPN DYPSHQNC EWIVY 60
Rhinatrema_bivittatum MDTVLLLFGLLALYLSGSRVTGQAGQSCGSRLNAKEAGYITSPGYPHDYP SYQHCEWVIF 60
Xenopus_tropicalis MDVFALVLGVISLCSLGAKVSGQEG-TCGGRLNAKDAGYITSPGYPN DYPPHQNC EWIIIS 59
1.....10.....20.....30.....40.....50.....60

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: : . * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * :
Pavo_muticus      APEPNQKIILNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Pavo_cristatus    APEPNQKIILNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Gallus_gallus     APEPNQKIILNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Chelonia_mydas    APEANQKIILNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Mus_musculus      APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Rattus_norvegicus APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Homo_sapiens      APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Pan_troglodytes   APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Macaca_mulatta    APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Callithrix_jacchus APDPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Heterocephalus_glaber APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Canis_lupus_familiaris APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Equus_caballus    APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Bos_taurus        APEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Rhinatrema_bivittatum TPEPNQKIVLNFNPHFEIEKHDCKYDFIEIRDGDSEADLLGKHCGNIAPPTIISSGSSL 120
Xenopus_tropicalis APEPNQKIVLNFNPHFDIEKHDCKYDFIEIRDGDSEAEELLGKHCGNIAPPTIISSGSSQM 119
.....70.....80.....90.....100.....110.....120

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* : * * : * : * : * : * : * : * : * : * : * : * : * : * : * : * : * :
Pavo_muticus      YIKFTSDYARQGAGFSLRYEIKTGSEDCSRNFTASNGTIESPGFPDKYPHNLDCVFTII 180
Pavo_cristatus    YIKFTSDYARQGAGFSLRYEIKTGSEDCSRNFTASNGTIESPGFPDKYPHNLDCVFTII 180
Gallus_gallus     YIKFTSDYARQGAGFSLRYEIKTGSEDCSRNFTASNGTIESPGFPDKYPHNLDCVFTII 180
Chelonia_mydas    YIKFTSDYARQGAGFSLRYEIKTGSEDCSRNFTSSNGTIESPGFPDKYPHNLDCVFTII 180
Mus_musculus      YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Rattus_norvegicus YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Homo_sapiens      YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Pan_troglodytes   YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Macaca_mulatta    YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Callithrix_jacchus YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Heterocephalus_glaber YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Canis_lupus_familiaris YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Equus_caballus    YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Bos_taurus        YIKFTSDYARQGAGFSLRYEIKTGSEDCSKNFTSPNGTIESPGFPDKYPHNLDCVFTII 180
Rhinatrema_bivittatum YIKFTSDYARQGAGFSLRYEIKTGSEDCSRNFTSSNGTIESPGFPDKYPHNLDCVFTII 180
Xenopus_tropicalis YIRFTSDYARQGAGFSLRYEIKTGSEDCSRNFTSSNGTIESPGFPDKYPHNLDCVFTII 179
.....130.....140.....150.....160.....170.....180

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***: **:*.: *****.*****:*****:***:* **.:**
AKPKTEILLHFVLFDFLEHDPLOAGEGDKYDWLDIWDGIPQVGPLIGRYCGTKMPSDIRS
AKPKTEILLHFVLFDFLEHDPLOAGEGDKYDWLDIWDGIPQVGPLIGRYCGTKMPSDIRS
AKPKTEILLHFVLFDFLEHDPLOAGEGDKYDWLDIWDGIPQVGPLIGRYCGTKMPSDIRS
AKPKMEIILQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIPQVGPLIGRYCGTKTPSEIRS
AKPRMEIILQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSKLRS
AKPRMEIILQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSKLRS
AKPKMEIILQFLIFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSELRS
AKPKMEIILQFLIFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSELRS
AKPKMEIVLQFLIFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSELRS
AKPKMEIILQFLIFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGAKIPSELRS
AKPKMEIILQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSELRS
AKPKMEIILQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSELRS
AKPKVEIVLQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIPHVGPLIGKYCGTKTPSELRS
AKPKMEIILQFLTFDFLEHDPLOVGECDCKYDWLDIWDGIVSVNGPLIGKYCGTKTPSELRS
AKPKMEIVLQFLTFDFLEHDPLOAGEGDKYDWLDIWDGIVSVNGPLIGRYCGTKTPSEIRS
AKPKMEIILQFLTFDFLEHDPLOAGEGDKYDWLDIWDGVPSVGPLIGRYCGTKTPSEIRS
.....190.....200.....210.....220.....230.....240

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[illegible][illegible]

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*****::*****: * * . * * :*:***: : *::***:*.*** * ***:
Pavo_muticus      YKLEVSTNGEDWMMYRHGKNHKTFOANEDATEVVLNKHHSPLTRFVRIRPQSWHKGIAL 420
Pavo_cristatus    YKLEVSTNGEDWMMYRHGKNHKTFOANEDATEVVLNKHHSPLTRFVRIRPQSWHKGIAL 420
Gallus_gallus     YKLEVSTNGEDWMMYRHGKNHKTFOANEDATEVVLNKHHSPLTRFVRIRPQSWHNGIAL 420
Chelonia_mydas    YKLEVSTNGEDWMMYRHGKNHKTFOANTDVTEVVLNKHHTPVLTRFVRIRPQVWHNGIAL 420
Mus_musculus      YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHMLPLTRFIRIRPQTWHLGIAL 420
Rattus_norvegicus YKLEVSTNGEDWMMYRHGKNHKTFOANNDATELVLNKLHPLTRFIRIRPQTWHLGIAL 420
Homo_sapiens      YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHAPLLTRFVRIRPQTWHSGLIAL 420
Pan_troglodytes   YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHAPLLTRFVRIRPQTWHSGLIAL 420
Macaca_mulatta    YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHAPLLTRFVRIRPQTWHSGLIAL 420
Callithrix_jacchus YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHAPLLTRFVRIRPQTWHSGLIAL 420
Heterocephalus_glaber YKLEVSTNGEDWMMYRHGKNHKTFOANNDASEVVLNKLHAPLLTRFVRIRPQSWHSGLIAL 420
Canis_lupus_familiaris YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHPLTRFVRIRPQTWHSGLIAL 420
Equus_caballus    YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHPLTRFVRIRPQTWHSGLIAL 420
Bos_taurus        YKLEVSTNGEDWMMYRHGKNHKTFOANNDATEVVLNKLHSPLLTRFVRIRPQTWHTGIAL 420
Rhinatrema_bivittatum YKLEVSTNGEDWMMFRHGKNQKIFOGNNDPSEVVLNKHQPVLTRFVRIRPQTWDSGLIAL 420
Xenopus_tropicalis YKLEVSTNGEDWMMFRHGKNHKTIFPGNTDPTFVVLNKHQPVLTRFVRIRPQSWATGIAM 419
.....370.....380.....390.....400.....410.....420

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*::***:***:***:***:***:***:***:***:***:***:***:***:***:***:***:***:
Pavo_muticus      RLELYGCRITDSPCSNLLGMLSGLIIPDSQISASSIRGYDWSPSMARLVSSRSRGWFFRIPQ 480
Pavo_cristatus    RLELYGCRITDSPCSNLLGMLSGLIIPDSQISASSIRGYDWSPSMARLVSSRSRGWFFRIPQ 480
Gallus_gallus     RLELYGCRITDSPCSNLLGMLSGLIIPDSQISASSIRGYDWSPSMARLVSSRSRGWFFRIPQ 480
Chelonia_mydas    RLELYGCRITDSPCSNMLGMLSGLIIPDSQISASSIRGYDWSPSMARLVSSRSRGWFFRIPQ 480
Mus_musculus      RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRNPQ 480
Rattus_norvegicus RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRNPQ 480
Homo_sapiens      RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Pan_troglodytes   RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Macaca_mulatta    RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Callithrix_jacchus RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Heterocephalus_glaber RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Canis_lupus_familiaris RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Equus_caballus    RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Bos_taurus        RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Rhinatrema_bivittatum RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 480
Xenopus_tropicalis RLELYGCRITDAPCSNMLGMLSGLIADTQISASSTREYLWSPSAARLVSSRSRGWFFRIPQ 479
.....430.....440.....450.....460.....470.....480

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**.*.*****. *.*:***:*****. . * *.*.*****:***:*. ** .: *
Pavo_muticus      AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSVTTTESRSFVKFKFVAYSMLNGKDWEFIQD 540
Pavo_cristatus    AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSVTTTESRSFVKFKFVAYSMLNGKDWEFIQD 540
Gallus_gallus     AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSVTTTESRSFVKFKFVAYSMLNGKDWEFIQD 540
Chelonia_mydas    AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITMVEARSFVKFKFVAYSMLNGKDWEYIQD 540
Mus_musculus      AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Rattus_norvegicus AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Homo_sapiens      AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Pan_troglodytes   AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Macaca_mulatta    AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Callithrix_jacchus AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Heterocephalus_glaber AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Canis_lupus_familiaris AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Equus_caballus    AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Bos_taurus        AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Rhinatrema_bivittatum AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 540
Xenopus_tropicalis AQPGEEWLQVDLGVPKNVKGVIIQGARGGDSITAVEARAFVRKFKVSYSLNGKDWEYIQD 539
.....490.....500.....510.....520.....530.....540

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      :*  . * ****:*** *:****: : ****:***:*****:***:****: : **
Pavo_muticus      LKTMQAKLFEGNIHYDIPEIRRFDPVPAQYVRVHPERWSPAGIGMRLEVLGCDWTDVKPT 600
Pavo_cristatus    LKTMQAKLFEGNIHYDIPEIRRFDPVPAQYVRVHPERWSPAGIGMRLEVLGCDWTDVKPT 600
Gallus_gallus     PKTMQAKLFEGNIHYDIPEIRRFDPVPAQYVRVHPERWSPAGIGMRLEVLGCDWTDVKPT 600
Chelonia_mydas    TKTMQPKLFEGNMHYDIPEVRRFDPVPAQYIRVHPERWSPAGIGMRLEVLGCDWTAVKPT 600
Mus_musculus      PRTQQTKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Rattus_norvegicus PRTQQPKLFEGNMHYDTPDIRRFEPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Homo_sapiens      PRTQQPKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Pan_troglodytes   PRTQQPKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Macaca_mulatta    PRTQQPKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Callithrix_jacchus PRTQQPKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Heterocephalus_glaber PRTQQPKLFEGNVHYDSPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Canis_lupus_familiaris PRTQQPKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Equus_caballus    PRTQQPKLFEGNMHYDTPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Bos_taurus        PRTQQPKLFEGNMHYDTPDIRRFDPVLAQYVRVYPERWSPAGIGMRLEVLGCDWTDVSKPT 600
Rhinatrema_bivittatum SRTEQPKLFEGNMHYDMPDIRRFDPVPAQYVRVYPERWSPAGIGMRLEILGCDLMEVKPT 600
Xenopus_tropicalis LKTELAKQFEGNMHYDTPVRRFEQVAAQFVRVYVDPKWSPAGMGMMEVLGCDRQEVKPT 599
.....550.....560.....570.....580.....590.....600

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      **: ** *:***.*: : * ** * : * .***** : : *. * *
Pavo_muticus      AETLVPTLKSEETTTTPYPTDEEATECGDSCGEEED--FHLPANFNCNFDLPEDLCGWSHD 658
Pavo_cristatus    AETLVPTLKSEETTTTPYPTDEEATECGDSCGEEED--FHLPANFNCNFDLPEDLCGWSHD 658
Gallus_gallus     AETLVPTLKSEETTTTPYPTDEEATECGDSCGEEED--FHLPANFNCNFDLPEDLCGWSHD 658
Chelonia_mydas    SETLKPTLKSEETTTSPYPTDEETTECGDGCGEADD--AQLPVGFNCNFDLPEDLCGWSND 658
Mus_musculus      VETLGPTVKSEETTTTPYPMDEDATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWVYD 660
Rattus_norvegicus VETLGPTVKSEETTTTPYPMDEDATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Homo_sapiens      VETLGPTVKSEETTTTPYPTDEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Pan_troglodytes   VETLGPTVKSEETTTTPYPTDEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Macaca_mulatta    VETLGPTVKSEETTTTPYPTDEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Callithrix_jacchus VETLGPTAKSEETTTTPYPIEEEATDCGENCSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Heterocephalus_glaber VETLGPTVKSEETTTTPYPIEEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Canis_lupus_familiaris VETLGPTVKSEETTTTPYPIDEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Equus_caballus    VETLGPTVKSEETTTTPYPIDEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Bos_taurus        VETLGPTVKSEETTTTPYPTDEEATECGENCSSFEDDKDLQLPSGFNCNFDPEETCGWMYD 660
Rhinatrema_bivittatum SETLKPTLKSEETTTTPYPTDEA---CGYGCVENED--FQFPGFNCNFDHPDDFCGWSHD 655
Xenopus_tropicalis TETVKPTVKTEEVTTQNVSDDEETTECGEACI---DEFOYPPGFNCNFDHSDVCSWTHD 655
.....610.....620.....630.....640.....650.....660

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      :.* . : . : : : * . * . : * : * : :
Pavo_muticus      LATGYTWSFQPASTWMGNSESPETVPDVKSYLRLQSSGRRESQRARLISPTIYLPRAI 718
Pavo_cristatus    LATGYTWSFQPASTWMGNSESPETVPDVKSYLRLQSSGRRESQRARLISPTIYLPRAI 718
Gallus_gallus     SATGYTWSFQPASTWMGNSESPETLPDAKSYLRLQSSGRRESQVRRLISPTIYLPRAV 718
Chelonia_mydas    PATDYMWSFHSRSTWFSNPGPSTGSLPESKSYLRLQSSGRRADQRTRLISPVYLPRAV 718
Mus_musculus      HAK-----WLRSTWISSANPNDRTFPDDKNFLKLQSDGRREGQYGRLLISPPVHLPRSPV 714
Rattus_norvegicus RAK-----WLQSTWISSANPNDRTFPDDKNFLKLQSDGGREGQFGRLLISPPVHLPRSPV 714
Homo_sapiens      HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Pan_troglodytes   HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Macaca_mulatta    HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Callithrix_jacchus HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Heterocephalus_glaber HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Canis_lupus_familiaris HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Equus_caballus    HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Bos_taurus        HAK-----WLRSTWASSSSPNDRTFPDDRNFLRLQSDSREGQYARLLISPPVHLPRSPV 714
Rhinatrema_bivittatum ATADFTWSFQPRSPWIGNSSESLR---GDNKNYLRLPSNGRREGHRRARLLSPKILPRSAI 712
Xenopus_tropicalis TNADFTWSFHHPSPWMGHSGSVAG---NSKHYLRLLPSTGRREGQHARLLSPKMYLPRTVL 712
.....670.....680.....690.....700.....710.....720

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Pavo_muticus      CMVFQYQVWGSSGVMLRVVREASQEHKALWVIAEDQGKEWREGRIILPSY--DMEYRIVF 776
Pavo_cristatus    CMVFQYQVWGSSGVMLRVVREASQEHKALWVIAEDQGKEWREGRIILPSY--DMEYRIVF 776
Gallus_gallus     CMVFQYQVWGSSGVMLRVVREASQEHKALWVIAEDQGKEWREGRIILPSY--DMEYRIVF 776
Chelonia_mydas    CMVFQYHASGRNGIMLOVWREANQENKLLWIISEDQGEWKHGRRIILPSY--DMDYQIVF 776
Mus_musculus      CMVFQYQAMGGHGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Rattus_norvegicus CMVFQYQAMGGHGVALQVVREARQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Homo_sapiens      CMVFQYQATGGRGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Pan_troglodytes   CMVFQYQATGGRGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Macaca_mulatta    CMVFQYQATGGRGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Callithrix_jacchus CMVFQYQATGGRGVALQVVREASQASKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Heterocephalus_glaber CLEFQFQATGGRGVELQVVREGSQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Canis_lupus_familiaris CMVFQYQATGGRGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Equus_caballus    CMVFQYQATGGRGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Bos_taurus        CMVFQYQATGGRGVALQVVREASQESKLLWVIREDDQGEWKHGRRIILPSY--DMEYQIVF 772
Rhinatrema_bivittatum CMVFQYQASDNGGVALQVRREANQEMKLLWIINEDQGEWKHGRRIILPSY--DMEYQIVF 770
Xenopus_tropicalis CMVFRYRASGSSGGTLOVLRKSLLENRLWQMKKEQESDWREGRIILNSKGEVEEYQVVI 772
.....730.....740.....750.....760.....770.....780

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Pavo_muticus      EGFIRNGHTGELALDDVRLGNDIPLECYMEPITAFPGENF-F-PVNFPRMKDDFLIPEQD 834
Pavo_cristatus    EGFIRNGHTGELALDDVRLGNDIPLECYMEPITAFPGENF-F-PVNFPRMKDDFLIPEQD 834
Gallus_gallus     EGFIRNGHAGELALDDIRLNDIPLECYMEPITAFPGENFYF-PVNFPRMKDDFFIPEQD 835
Chelonia_mydas    EGVIRKGSGEIAIDDIRIGSDISLENCMEPITAFPGENFYI-PVDFPRLEDGFAIPGQD 835
Mus_musculus      EGVIGKGRSGEISIDDIRISTDVPLENCMEPISAF-----VDIPEIHG-----GE 818
Rattus_norvegicus EGVIGKGRSGEISIDDIRISTDVPLENCMEPISAFAGEDF---KVDIPEIHG-----GE 823
Homo_sapiens      EGVIGKGRSGEIAIDDIRISTDVPLENCMEPISAF-----VDIPEIHE-----RE 818
Pan_troglodytes   EGVIGKGRSGEIAIDDIRISTDVPLENCMEPISAFAGENF---KVDIPEIHE-----RE 823
Macaca_mulatta    EGVIGKGRSGEIAIDDIRISTDVPLENCMEPISAFAGENF---KVDIPEIHE-----RE 823
Callithrix_jacchus EGVIGKGRSGEIAIDDIRLSTDVPLENCMEPISAF-----VDIPEIHE-----RE 818
Heterocephalus_glaber QGVIGKGRSGEIAIDDIRISTDIPLDSCMEPMSAFAGENY---KVNIPDIHG-----RE 823
Canis_lupus_familiaris EGVIGKGRSGEIAIDDIRISTDVPLENCMEPISAFAGENF---KVDIPEIHG-----RE 823
Equus_caballus    EGVIGKGRSGEIAIDDIRISTDVPLENCMEPISAF-----VDIPEIHG-----RE 818
Bos_taurus        EGVIGKGRSGEIAIDDIRISTDVPLENCMEPISAFAGENF---QVDIPEIHG-----RE 823
Rhinatrema_bivittatum EGVIGTGYSGEIAIDDIRIDADIPLEHCMEPIAFAFPKNTKYH-PVDIPRVSYG---LESLE 827
Xenopus_tropicalis DGIVGKGQPGIEIAVDIRIATDIPVEHCMEPLTAFSGONPVFPQVDFPVLTDLGHTFGK 832
.....790.....800.....810.....820.....830.....840

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Pavo_muticus      LEDSDDDTYFGLDKN---DTLFSINSFGNSKLDKEKSWLYTLDPILVTIIAMSSSLGVLLG 891
Pavo_cristatus    LEDSDDDTYFGSDKN---DTLFSINSFGNSKLDKEKSWLYTLDPILVTIIAMSSSLGVLLG 891
Gallus_gallus     FEDSDDDTYFGSDKN---DTLFSINSFGNSKLDKEKSWLYTLDPILVTIIAMSSSLGVLLG 892
Chelonia_mydas    IGDDNEDDYFGLDNN---TTLFSINSFVTPKLDKDKSWLYTLDPILVTIIAMSSSLGVLLG 892
Mus_musculus      GYEDEIDDEYEVDWS---NSSSSTSGAGDPSSGKEKSWLYTLDPILITIIAMSSSLGVLLG 875
Rattus_norvegicus GYEDEIDDDYEVDWN---NSSS-TSGAGSPSSGKEKSWLYTLDPILITIIAMSSSLGVLLG 879
Homo_sapiens      GYEDEIDDEYEVDWS---NSSSATSGSGAPSTDKEKSWLYTLDPILITIIAMSSSLGVLLG 875
Pan_troglodytes   GYEDEIDDEYEVDWS---NSSSATSGSGAPSTDKEKSWLYTLDPILITIIAMSSSLGVLLG 880
Macaca_mulatta    GYEDEIDDEYEVDWS---NSS-ATSGSGAPSTDKEKSWLYTLDPILITIIAMSSSLGVLLG 879
Callithrix_jacchus GYEDEIDDEYEVDWS---NSSSATSGSGTPSTDKEKSWLYTLDPILITIIAMSSSLGVLLG 875
Heterocephalus_glaber GYEDEIDDEYEVDWS---NSSFPTSGAGDPSADKEKSWLYTLDPILITIIAMSSSLGVLLG 880
Canis_lupus_familiaris GYEDEIDDEYEVDWT---NSSSPTSGSGAPSDKEKSWLYTLDPILITIIAMSSSLGVLLG 880
Equus_caballus    GYEDEIDDEYEVDWG---NSSAPTSGSGAPSANREKSWLYTLDPILITIIAMSSSLGVLLG 875
Bos_taurus        GYEDEIDDDYEVDWS---NSSSPTSGSGAPLADKEKSWLYTLDPILITIIAMSSSLGVLLG 880
Rhinatrema_bivittatum GEHTDNADWLVLSTSSLPVNSLPTEFPVSPMSEKEKSWLYTLDPILVTIIVMSSSLGVLLG 887
Xenopus_tropicalis GKIGGYEEFY-----TALPTSINVTPRSDKEKSWLYTLDPILVTIIAMSSSLGVLLG 883
.....850.....860.....870.....880.....890.....900

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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* ***** *:*****.*****.*****.* *****
Pavo_muticus      AICAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGIKHKVKMNHQKCCSEA 942
Pavo_cristatus    AICAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGIKHKVKMNHQKCCSEA 942
Gallus_gallus     AICAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGIKHKVKMNHQKCCSEA 943
Chelonia_mydas    AICAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGIKHKVKMNHQKCCSEA 943
Mus_musculus      ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKINHQKCCSEA 926
Rattus_norvegicus ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKINHQKCCSEA 930
Homo_sapiens      ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 926
Pan_troglodytes   ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 931
Macaca_mulatta    ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 930
Callithrix_jacchus ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 926
Heterocephalus_glaber ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 931
Canis_lupus_familiaris ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 931
Equus_caballus    ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 926
Bos_taurus        ATCAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGLKHKVKMNHQKCCSEA 931
Rhinatrema_bivittatum AICAGLLLYCTCFYAGLSSRSSTTLENYNFELYDGIKHKVKMNPQKCCSEA 938
Xenopus_tropicalis AICAGLLLYCTCSYAGLSSRSSTTLENYNFELYDGIKHKVKMNPQKCCSEA 934
.....910.....920.....930.....940.....950.

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