

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/YAED11.p Tue Feb 1 14:54:44 2022

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                                *: * :          : ***: : :      : : * :
Mus_musculus      -----MSWFRAPENASPGDQ--DVFDEEADSLLAQREWQ      34
Rattus_norvegicus -----MSWFRATPEIPSPGDQ--DVFDEEADSLLVOREWQ      34
Bos_taurus        -----MSWVQAASLVQGPEEERDVFDEEADSLLVOREWR      35
Canis_lupus_familiaris -----MSWVQRAPLVRGPGEEDVFDEEADSLLVOREWR      35
Equus_caballus    -----MELPALPAAGGCVVASVMSWVRASPLVRDPGEDGVFDEEADSLVVOREWR      52
Macaca_mulatta    -----MSWVQGASLVRGPDKGDFVFDEEADSLLAQREWQ      35
Pan_troglodytes   -----MSWVQAASLIQGPDKGDFVFDEEADSLLAQREWQ      35
Callithrix_jacchus -----MSWVQAASSVRGPGEEDVFDEEADSLLVOREWQ      35
Heterocephalus_glaber -----MSWIQAAQAGGKAGDQDDVFDEEADSLLVOREWR      35
Pavo_muticus      -----MSWVQVVASRSN----EDVFDEDADEMPVQOEWN      31
Pavo_cristatus    -----MSWVQVVASRSN----EDVFDEDADEMPVQOEWN      31
Gallus_gallus     -----MSWVQVVANRSN----EDIFDEDADEMPVQOEWN      31
Chelonia_mydas    MLGRKNCSDSHTFTTCTGILVVTITMSWVKAASVRS--EDVFDEDADELHLVQKEWK      56
Rhinatrema_bivittatum -----MAWARAAGVGACS---DEVFDEEANELQLAHREWK      32
Xenopus_tropicalis -----MAWVRTALEIQQLGGEAEVDFDEDGDEMRLRLQRDWQ      35
Danio_rerio       -----MSWLKSVASSEE-----VFDEVDVDDISLQNKWK      29
1.....10.....20.....30.....40.....50.....60

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Mus_musculus      GHMRKRVQ--EGYRDGLDAGKALTLOQGFNOGYKEGADVILNYGLLRGTL SALLSWCHLH      92
Rattus_norvegicus DHMRKRVQ--EGYRDGIDAGKAVTLQOGFNOGYKEGADVILNYGLLRGTL SALLSWCHLH      92
Bos_taurus        SHMORRVK--EGYRDGIDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      93
Canis_lupus_familiaris SHMORRVK--EGYRDGIDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      93
Equus_caballus    SHMORRVK--EGYRDGVDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      110
Macaca_mulatta    SHMORRVK--EGYRDGIDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      93
Pan_troglodytes   SNMORRVK--EGYRDGIDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      93
Callithrix_jacchus SHMORRVK--EGYRDGVDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      95
Heterocephalus_glaber SHMORRVK--EGYRDGVDAGKAVTLQOGFNOGYKEGAELIINYGLRGTL SALLSWCHLH      93
Pavo_muticus      NTMKKRLK--DGYREGVEAGKELALQEGFNOGYROGAELMVTGCFRGTILNALLSWCHLN      89
Pavo_cristatus    NTMKKRLK--DGYREGVEAGKELALQEGFNOGYROGAELMVTGCFRGTILNALLSWCHLN      89
Gallus_gallus     NTMRKRLK--EGYRDGVEAGKELALQEGFNOGYROGAELMVACGFRGTILNALLSWCHLN      89
Chelonia_mydas    STMEKRVK--EGYRDGVEAGKELSLOQGFNRGYKGAEMMTTCGOLKGILSALLSWCHLN      114
Rhinatrema_bivittatum SVMEQVRK--EGYRDGVDAGKGVSLQGLNOGYKEGAHLIVRSGLKRGILSALLSWCRLQ      90
Xenopus_tropicalis LSMEKRIK--EGYVDGIEAGKENSLOTGFNGYKGVNLLKHVYGEELKGILSALLAWCQLH      93
Danio_rerio       YNMEKRVK--DGFREGIDAGKEASLOAGFNMGYREGATKMTVIGOLKGITISALRCWCQVQ      87
.....70.....80.....90.....100.....110.....120

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Mus_musculus      GNSSTLISKISNLLDITVDQCEECVLRRLKSVTSQ--PRVTDLLDAIEDMDLCHVVPD--      148
Rattus_norvegicus GNSSTLIGKINNLLDAVGQCEECVIKHLKSVTSP--PHITDLLDSIEDLDLCHVVPPEKA      150
Bos_taurus        DNSSALISKINNLLDAVGQCEEYVLRHLKSITSQ--PHVVDLLDSIQDMDLCHVAPAEKK      151
Canis_lupus_familiaris DNGSALISKINNLLDAVGQCEEYVLRHLKSITSQ--PHVVDLLDSIQDMDLCHVAPAEKK      151
Equus_caballus    DNSSALISKINNLLDAVGQCEEDVLKHLKSITPQ--PHVVDLLDSIQDMDLCHVVPAEKK      168
Macaca_mulatta    NNNSTLINKINNLLDAVGQCEEYVLRHLKSITPP--SHVVDLLDSIEDMDLCHVVPAEKK      151
Pan_troglodytes   NNNSTLINKINNLLDAVGQCEEYVLRHLKSITPP--SHVVDLLDSIEDMDLCHVVPAEKK      151
Callithrix_jacchus NNNSTLINKIHNLLDAVGQCEEYVLRHLKSITPP--SHVVDLLDSIEDMDLCHVVAEKK      153
Heterocephalus_glaber DNSSTLISKINNLLDAVSQCEEYVLAHLKSVPPQ--PNVGDLLDSIEDMDLCHVVPAEK-      150
Pavo_muticus      GHDSALR-KINNLELVIGKHEEDLLKCLNSIQLO--PNVGDILDSIQDMDLSHIAPGGTE      146
Pavo_cristatus    GHDSALR-KINNLELVIGKHEEDLLKCLNSIQLO--PNVGDILDSIQDMDLSHIAPGGTE      146
Gallus_gallus     GHDSALR-KINNLELVIGKHEEDLLKCLNSVQLO--PNVGDILDSIQDMDLSHIAPAGVD      146
Chelonia_mydas    GQISALLSKINTLLAEVGYKCYKCVLKYMNSISPO--PHLGELLDVQDMDLSHTIPVENE      172
Rhinatrema_bivittatum EADCALLARISDLLDAVGRYEERVLRLSSAPLQ--PQPAELLDAIQDMDLQCDAPPGQ      147
Xenopus_tropicalis KTKDAASGKLHELLTSLDQCEEQIVKDLSSFYKG--AQPSDLLHCVEDMAL---ISHEHR      148
Danio_rerio       LPESPQLASVTDLLQRLTHEDELVEAMRKAQQRPIPSVTEMVDMEDLNVEQINQGGVS      147
.....130.....140.....150.....160.....170.....180

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Mus_musculus      -QAKGD-----SNAEINTDSD-SPNGMGC--SHPE-HCRPKHAHLEKPSLSWILEQTS 198
Rattus_norvegicus VEARGD-----TSADISTDADRSPNGMDC--SHPE-CCRTQEHHAHLEKPSLTWILEQTSN 202
Bos_taurus        IDEVKDERFCENNAEFNKNC SKNLSQVDC--SSLK-CCRAQEHACPENPSLTWILEQTAS 208
Canis_lupus_familiaris MDEAKDERLCENNAELHKNC SKSLSEADC--SSLE-CCRLOKHAHSENPSLAWILEQTS 208
Equus_caballus     TDEATDERLRENNAEFNKNCGRSVNGVDC--SSLE-CCRTQEHHAHSEQPSLTWILQQTAS 225
Macaca_mulatta     IDEAKDERLCENNAEFNKNC SKSHSGIDC--SYLE-CCRTQEHHAHSENPSPTWILEQTAG 208
Pan_troglodytes    IDEAKDERLCENNAEFNKNC SKSHSGIDC--SYVE-CCRTQEHHAHSENPSPTWILEQTAS 208
Callithrix_jacchus TDEATDERLCENNAEFNTNCSRS HSGIDF--SYLE-CCGTQEHHAHSENPSLTWILEQTAG 210
Heterocephalus_glaber MDEAKDERLYENNAEFNKNC GNSPSRADC--SYLE-GCRTQEPAHSANPILPWILEQTAS 207
Pavo_muticus       CSEVNAEKYEHVGS-SGENCCRNNGEDGS--LQSD-CNGEKLFTDPDKSTLAWVKKQTVW 202
Pavo_cristatus     CSEVNAEKYEHVGS-SGENCCRNNGEDSS--LQSG-CNREKLFTDPDKSTLAWVKKQTVW 202
Gallus_gallus      CSEVKAEKYGHVGS-SDENCCRNNGEDGS--LQFD-CNREKLFTDPDKSTLAWVKKQTLW 202
Chelonia_mydas     FDATETGRLCENES ELSENSCRNNGGADS--LQSDSWRRTKETHSERPTLAWLKEETAC 230
Rhinatrema_bivittatum CGGSEDGAFGERVPDAVTACYKSNSEAEAAPSRLECCRMAEKCTEAVEQNFSWLHVHQTG 207
Xenopus_tropicalis CELNEPG-----SCAGSRNCCTSQDSNGS--STFR-CMNTNYISDSTKEELCKIFKETLL 200
Danio_rerio        KCSNDGDCCRRDGANRECCDVRAESKDSF-----GVPPHGSFSKRESLRELQKRCLD 199
.....190.....200.....210.....220.....230.....240

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Mus_musculus      LVKQLGVPADILQHLRQL----- 216
Rattus_norvegicus LVKQLGISVDILQHLRQL----- 220
Bos_taurus        LVKQLGVSVDILQHLKQL----- 226
Canis_lupus_familiaris LVKQLGISLDVLQHLKQL----- 226
Equus_caballus     LVEQLGVSIDVLQHLKQL----- 243
Macaca_mulatta     LVKQLGLSVDVLQHLKQL----- 226
Pan_troglodytes    LVKQLGLSVDVLQHLKQL----- 226
Callithrix_jacchus LVKQLGISVDVLQHLKHL----- 228
Heterocephalus_glaber LVTQLGISVDVLQHLKQL----- 225
Pavo_muticus       LVEQLGLSLDILHHIQQLEH----- 222
Pavo_cristatus     LVEQLGLSLDILHHIQQLEH----- 222
Gallus_gallus      LVEQLGLSLDILHHIQQLEH----- 222
Chelonia_mydas     LGEQLGLSLDILQHVOQLES----- 250
Rhinatrema_bivittatum LMEQLSLSADLLQQVKQLEN----- 227
Xenopus_tropicalis VAEQLDISAELLYYIQTNNNTESPLIQLK 230
Danio_rerio        LVTELGLPEELKLHIQQLIDT----- 220
.....250.....260.....270

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