

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/ARSDates: Tue Feb 1 11:24:08 2022

Page 1 of 4

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                                     :  **:*.:**
Pavo_muticus      -----MER-----LYVLWCLLWCLL-----RPAAARSPPHLVLVLA 31
Pavo_cristatus    -----MER-----LYVLWCLLWCLL-----RPAAARSPPHLVLVLA 31
Gallus_gallus     -----MER-----LRALWCLLWCLL-----RPAAARSPPHLVLVLA 31
Chelonia_mydas    ---MLKRPGPGLGS-----ARLSLLLCWLRL-----CLASSAAAPHLVVVLA 39
Mus_musculus      MGKLSFCTGRSRPGGPGPQ-----LPLLLLLLQLLLLLLSPARASGATQPPHVVFVLA 53
Rattus_norvegicus MGELSGCTGGSRRAGGPGPR-----LPLLLLLL-----LWPARASDAAPPPHVVFVLA 47
Homo_sapiens      ---MGPRGAASLPRGPGPRRLLLPVVLP--LLLLLLL--APPGSAGASRPPHLVFLA 52
Pan_troglodytes   ---MGPRGAASLPRGPGPRRLLLPVVLP--LLLLLLL--APPGSAGASRPPHLVFLA 53
Macaca_mulatta    ---MGPRRSASLPRGLGPRRLSLLPVVLP--LLLLLLL--EPLGSGAEASRPPHLVFLA 53
Callithrix_jacchus ---MVPRGAASLPRGPGPRRLSLLPVVLP--LVLPLLL--TPPGSGAEASRPPHLVFLA 53
Canis_lupus_familiaris ---MCGRGAASLPGGPGPRRRLPGVLR--LLRLLLLL--APPGAGARAAGPPHLVFLA 54
Felis_catus       ---MGRRGAASLPRGPGPRRLSLLPVVLP--LLRLLLLL--SRPGAGAGADRPPHLVFLA 54
Bos_taurus        ---MGARGVESPPRGPGP--LLSAILPLGLLLLLLL--PPLGSGAGASRPPHLVFLA 52
Equus_caballus     ---MGPRRAPSLPRGPGLR-----LPLLLLLLLLLQ-----GAGAGAGRPPHLVFLA 44
Latimeria_chalumnae ---MAAARERRSLACAQCRR-----LLLLLLLQOALL--LPASGTGSPPPHIVFVLA 49
Xenopus_tropicalis ---MAGSLGLTRL-----LLGCLP--WMALS-----QPSAAAAAP--PHIVFVLA 38
Rhinatrema_bivittatum ---MTAAGRAGLRPLSR-----FLSCLCYLALP-----PACQPAPAPSPHIVFILA 44
1.....10.....20.....30.....40.....50.....60

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Pavo_muticus      DDLGWGDVGWHSIAIRTPRLDALGAGGVRLERYYTQPLCTPSRSQLLSGRYQIHTGLQHQ 91
Pavo_cristatus    DDLGWGDVGWHSIAIRTPRLDALGAGGVRLERYYTQPLCTPSRSQLLSGRYQIHTGLQHQ 91
Gallus_gallus     DDLGWGDVGWHSIAIRTPRLDALGAGGVRLERYYTQPLCTPSRSQLLSGRYQIHTGLQHQ 91
Chelonia_mydas    DDLGWHHDVGWHDLSIRTPQLDALGAGGVRLERYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 99
Mus_musculus      DDLGWNDLGFHGSVIRTPHLDALAAGGVLDNYYVQPLCTPSRSQLLTGRYQIHTGLQHY 113
Rattus_norvegicus DDLGWNDLGFHGSVIRTPHLDALAAGGVLDNYYVQPLCTPSRSQLLTGRYQIHTGLQHY 107
Homo_sapiens      DDLGWNDVGFHGSRIIRTPHLDALAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 112
Pan_troglodytes   DDLGWNDVGFHGSRIIRTPHLDALAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 113
Macaca_mulatta    DDLGWNDVGFHGSRIIRTPHLDALAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 113
Callithrix_jacchus DDLGWNDVGFHGSRIIRTPHLDALAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 113
Canis_lupus_familiaris DDLGWHHDVGWHSIAIRTPRLDALAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 114
Felis_catus       DDLGWNDVGFHGSNIRTPHLDELAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 114
Bos_taurus        DDLGWNDVGFHGSIAIRTPRLDALAAGGVLDNYYTQPLCTPSRSQLLTGRYQIHTGLQHQ 112
Equus_caballus     DDLGWHHDVGWHSIAIRTPRLDALAAGGVLDNYYTQPLCTPSRSQLLSGRYQIHTGLQHQ 104
Latimeria_chalumnae DDYGWNDVGFHGSSEIKTPNLDRLSARGVRLDNYVQPLCTPSRSQLLTGRYQIHTGLQHQ 109
Xenopus_tropicalis DDLGWNDVGFHGSSEILTPNLDRLSAGQVRLDNYVQPLCTPSRSQLLSGRYQIHTGLQHQ 98
Rhinatrema_bivittatum DDLGWNDVGFHGSSEIRTPNLDRLSAGQVRLDNYVQPLCTPSRSQLLTGRYQIHTGLQHQ 104
.....70.....80.....90.....100.....110.....120

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Pavo_muticus      IIWPCQPSCLPLDEKLLPELLKDAGYVTHMVGKWHLGMYKKECLPTRRGFDYFGYLLGS 151
Pavo_cristatus    IIWPCQPSCLPLDEKLLPELLKDAGYVTHMVGKWHLGMYKKECLPTRRGFDYFGYLLGS 151
Gallus_gallus     IIWPCQPSCLPLDEKLLPELLKDAGYVTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 151
Chelonia_mydas    IIWPCQPSCVPLNEKLLPELLKEAGYVTHMVGKWHLGMYKKECLPIHRGFDYFGYLLGS 159
Mus_musculus      LIMTCQPSCVPLDEKLLPOLLKEAGYATHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 173
Rattus_norvegicus LIMTCQPNVPLDEKLLPOLLKDAGYATHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 167
Homo_sapiens      IIWPCQPSCVPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 172
Pan_troglodytes   IIWPCQPSCVPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 173
Macaca_mulatta    IIWPCQPSCVPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 173
Callithrix_jacchus IIWPCQPSCVPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 173
Canis_lupus_familiaris IIWPCQPSCVPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 174
Felis_catus       IIWPCQPSCVPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 174
Bos_taurus        IILPCQPSCIPLDEKLLPOLLKEAGYATHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 172
Equus_caballus     IIWPCQPSCLPLDEKLLPOLLKEAGYTHMVGKWHLGMYRKECLPTRRGFDYFGYLLGS 164
Latimeria_chalumnae IIWPCQPSCVPLDEKLLPELLKEAGYVTHMVGKWHLGMYKKECLPIHRGFDYFGYLLGS 169
Xenopus_tropicalis IIWPCQPHCHPLEDKLLPELLKERGYVTHMVGKWHLGMYKTDCLPTRRGFDYFGYWTGG 158
Rhinatrema_bivittatum IIWPCQPSCVPLEEKLLPELLKETGYVTHMVGKWHLGMYTKACLPTRRGFDYFGYLLGS 164
.....130.....140.....150.....160.....170.....180

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File: /media/morpheus/disk1/fst/pep_msa/ARSDates: Tue Feb 1 11:24:08 2022

Page 2 of 4

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*****: * * * *****:**** * : **: :*.*** :...* :****
Pavo_muticus      EDYYSHDHCVFIFAKNVTRCALDFRDGEEVATGFKNMYSTNLFTERAIDLIAHSHKTEKPL 211
Pavo_cristatus    EDYYSHDHCVFIFAKNVTRCALDFRDGEEVATGFKNMYSTNLFTERAIDLIAHSHKTEKPL 211
Gallus_gallus     EDYYSHDHCVFIFAKNVTRCALDFRDGEEVATGFKNMYSTNLFTERAIDLIAHSHKTEKPL 211
Chelonia_mydas    EDYYSHERCVFISAKNATRCALDFRDGEEVAVGFGNMYSTNVFTKRAVDLIASHKTEKPL 219
Mus_musculus      EDYYTHEACAPIESLNGTRCALDLRDGEEPAKEYNNIYSTNIFTKRATTVIANHPPEKPL 233
Rattus_norvegicus EDYYTHEACAPIECLNGTRCALDLRDGEEPAKEYTDIYSTNIFTKRATTLIANHPPEKPL 227
Homo_sapiens      EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTKRAIALITNHPPEKPL 232
Pan_troglodytes   EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTKRAIALITNHPPEKPL 233
Macaca_mulatta    EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTKRATLITNHPPEKPL 233
Callithrix_jacchus EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTKRATTLITNHPPEKPL 233
Canis_lupus_familiaris EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTERATALISNHPPEKPL 234
Felis_catus       EDYYSHERCALIDSLNVTRCALDFRDGEQVATGYKNMYSTNIFTERATALITSHPPEKPL 234
Bos_taurus        EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTNIFTKRATTLITNHPPEKPL 232
Equus_caballus    EDYYSHERC TLIDALNVTRCALDFRDGEEVATGYKNMYSTSVFTERATALITNHPPEKPL 224
Latimeria_chalumnae EDYYSHERC TYIAPLNATRCALDFRDGEEVAKAFKNQYSANVFVDRAIDLLAKHNPCKPL 229
Xenopus_tropicalis EDYYSHERC YLITLNIITRCALDFRDGEVPATDYQMKYSTHLFTDRAVDLITNHPPEKPL 218
Rhinatrema_bivittatum EDYYTHORCCLIKTLNVTRCALDFRDGEEVATGFSNIYSANIFTERAIDLISKHQPQKPL 224
.....190.....200.....210.....220.....230.....240

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***** :*.***:*. :* :** * * :* :* * :*.***:****. :* **: :...*
Pavo_muticus      FLYLAFQSVHEPLEVSE EYMKPYSSIKDEKRRRYAGMVSIMDEAVGNLTALDKKYGLWNN 271
Pavo_cristatus    FLYLAFQSVHEPLEVSE EYMKPYSSIKDEKRRRYAGMVSIMDEAVGNLTALDKKYGLWNN 271
Gallus_gallus     FLYLAFQSVHEPLEVSAEYMKPYSSIKDVKRRRYAGMVSIMDEAVGNLTALDKKYGLWNN 271
Chelonia_mydas    FLYLALQSVHEPLQVPGEYMKPYAFIKDEKRRHYAGMVSIMDEAVGNVTAALKRYGLWNN 279
Mus_musculus      FLYLAFQSVHDPLQVP E EYMEPYGFIQDKHRRYAGMVSIMDEAVGNVTALKSHGLWNN 293
Rattus_norvegicus FLYLAFQSVHDPLQVP E EYMEPYDFIQDKHRRYAGMVSILDEAVGNVTALKSRGLWNN 287
Homo_sapiens      FLYLALQSVHEPLQVP E EYLPYDFIQDKNRHHYAGMVSIMDEAVGNVTAALKSSGLWNN 292
Pan_troglodytes   FLYLALQSVHEPLQVP E EYLPYDFIQDKNRHHYAGMVSIMDEAVGNVTAALKSSGLWNN 293
Macaca_mulatta    FLYLALQSVHEPLQVP E EYLPYDFIQDKNRHHYAGMVSIMDEAVGNVTAALKSSGLWNN 293
Callithrix_jacchus FLYLALQSVHEPLQVP E EYLPYDFIQDKNRHHYAGMVSIMDEAVGNVTAALKSHGLWNN 293
Canis_lupus_familiaris FLYLALQSVHEPLQVP E EYLPYDFIHDKNRRYAGMVSIMDEAVGNVTAALKSHGLWNN 294
Felis_catus       FLYLALQSVHEPLQVP E EYLPYDFIQDKNRHHYAGMVSIMDEAVGNVTAALKSHGLWNN 294
Bos_taurus        FLYLALQSVHEPLQVP E EYLPYDFIQDRNRRYAGMASVMDEAVGNVTAALERRGLWNN 292
Equus_caballus    FLYLALQSVHQPLQVP E EYLPYDFIQDKNRHHYAGMVSILDEAVGNVTAALKSRGLWNN 284
Latimeria_chalumnae FLYLALQSVHEPLQVP E KYTEPYRFISDKKRRHYAGMVSIMDEAVGNVTEALKKHNLWNN 289
Xenopus_tropicalis FLYLAYQAVHSPLOVPDQYIEPYTSIHDKNRRLYAGMVSILDEAVANVTNALKKQGLWNN 278
Rhinatrema_bivittatum FLYLAYQSVHSPLOVP E EYKEPYRFIQDEKRRTFAMVSVLDEAVGNVTAALKMQGLWNN 284
.....250.....260.....270.....280.....290.....300

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**.:***** ***** :*****:*.***:*. :* **: :...*
Pavo_muticus      TVLVFSTDNGGQTMAGGNNWPLRGRKWTLWEGGVRGVGFVASPLLKQKGVESHელიის 331
Pavo_cristatus    TVLVFSTDNGGQTMAGGNNWPLRGRKWTLWEGGVRGVGFVASPLLKQKGVESHელიის 331
Gallus_gallus     TVLVFSTDNGGQTMAGGNNWPLRGRKWTLWEGGVRGVGFVASPLLKQKGVESHელიის 331
Chelonia_mydas    TVLIFSTDNGGQTLGGGNNWPLRGRKWTLWEGGVRGVGFVASPLLKQKGVESHელიის 339
Mus_musculus      TVFIFSTDNGGQTRSGGNNWPLRGRKGTLWEGGIRGTGFVASPLLKQKGVKSRELHITD 353
Rattus_norvegicus TVLIFSTDNGGQTRSGGNNWPLRGRKGTLWEGGIRGAGFVASPLLKQKGVKSRELHITD 347
Homo_sapiens      TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHISD 352
Pan_troglodytes   TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHISD 353
Macaca_mulatta    TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHISD 353
Callithrix_jacchus TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHISD 353
Canis_lupus_familiaris TVFVSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKRKGVKSRELHISD 354
Felis_catus       TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGIRGVGFVASPLLKQKGVKNRELIHISD 354
Bos_taurus        TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKRKGVKTRელიის 352
Equus_caballus    TVFIFSTDNGGQTLAGGNNWPLRGRKWSLWEGGVRGVGFVASPLLKQKGVKNRELIHISD 344
Latimeria_chalumnae TVFIFSTDNGGQTLAGGNNWPLRGRKWTLWEGGVRGVGFVTSPLLKQKGVSNRELIHISD 349
Xenopus_tropicalis TVFIFSTDNGGQTLGGGNNWPLRGRKWTLWEGGIRGVGFVTSLLKQKGVTSKელიის 338
Rhinatrema_bivittatum TVLIFSTDNGGQTLGGGNNWPLRGRKWTLWEGGIRGVGFVTSPLRKQKGVTSQელიის 344
.....310.....320.....330.....340.....350.....360

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/ARSDates: Tue Feb 1 11:24:08 2022

Page 3 of 4

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*****  ** * :.*****:*.***** ***** ** * : * **
Pavo_muticus      WLPTLVHLAGGHTNGTKPLDGFVWKTISEGRPSPRVELLHNIDPMFVDDYPC----- 384
Pavo_cristatus    WLPTLVHLAGGHTNGTKPLDGFVWKTISEGRPSPRVELLHNIDPMFVDDYPC----- 384
Gallus_gallus     WLPTLVHLAGGHTNGTKPLDGFVWKTISEGRPSPRVELLHNIDPMFVDDYPC----- 384
Chelonia_mydas    WLPTLVNLAGGHINSTKPLDGFVWKTISEGSPSPRKELLHNIDPMFVDTSPCEERRYLG 399
Mus_musculus      WLPTLVDLAGGSTNGTKPLDGFNMWKTISEGHPSPRVELLHNIDQDFFDGLPCP----- 407
Rattus_norvegicus WLPTLVNLAGGSTHGTKPLDGFVWETISEGSPSPRVELLLNIDPDFFDGLPCP----- 401
Homo_sapiens      WLPTLVKLARGHTNGTKPLDGFVWKTISEGSPSPRIELLHNIDPNFVDSPPCP----- 406
Pan_troglodytes   WLPTLVKLARGHTNGTKPLDGFVWKTISEGSPSPRIELLHNIDPNFVDSPPCP----- 407
Macaca_mulatta    WLPTLVKLARGHTNGTKPLDGFVWKTISEGSPSPRVELLHNIDPNFVDSPPCP----- 407
Callithrix_jacchus WLPTLVKLARGHTNGTKPLDGFDMWKTISEGSPSPRVELLHNIDPDFVDSPPCP----- 407
Canis_lupus_familiaris WLPTLVGLAGGSTKGTKPLDGFVWRTISEGSPSPRMELLHNIDPNFVDISPCP----- 408
Felis_catus       WLPTLVKLARGSTKGTKPLDGFVWKTISEGSPSPRKELLHNIDPNFVDISPCP----- 408
Bos_taurus        WLPTLVKLAGGSTNGTKPLDGFVWNTISEGSPSPRMELLHNIDPNFVDIAPCP----- 406
Equus_caballus    WLPTLVKLAGGSTNGTKPLDGFNVWKTISEGSPSPRVELLHNIDPNFVDDSPCP----- 398
Latimeria_chalumnae WLPTLVNLAGGSTKGTKPLDGFVWKTISEGSPSPRAELLHNIDRLVVDTSPPCPG----- 404
Xenopus_tropicalis WLPTLVNLAGGSTNSTKPLDGFVWKTISEGSPSPRVELLHNIDPLFEDSFPSCSV----- 393
Rhinatrema_bivittatum WLPTLVNLAGGV TNGTKPLDGFNVWKTISEGSPSPRVELLHNIDPLFEDTSPPCP----- 398
.....370.....380.....390.....400.....410.....420

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:          ** :*:*: * :***** ** . *****.
Pavo_muticus      -----LGIDNRTSLPQINSFPWDNTLFNISVHAAIRHGKWKLLTGYPGCGHWFPFPPSLF 438
Pavo_cristatus    -----LGIDNRTSLPQINSFPWDNTLFNISVHAAIRHGKWKLLTGYPGCGHWFPFPPSLF 438
Gallus_gallus     -----LGIDNRTSLPQINSFPWDNTLFNISVHAAIRHGKWKLLTGYPGCGHWFPFPPSLF 438
Chelonia_mydas    CLPFASPGIDNRTSSPDNSFPWDDSIIFNISVHAAIRHGKWKLLTGYPGCGHWFPFPPPLF 459
Mus_musculus      -----GKNMTPAKDDSFPLEHSFNTSIHAGIRYKNWKLLTGHPGCGYWFPPPSQS 458
Rattus_norvegicus -----GKNMTPAKDDSFPLEHSFNTSIHAGIRYKNWKLLTGYPGCGYWFPPPSQS 452
Homo_sapiens      -----RNSMAPAKDDSSLPEYSFNTSVHAAIRHGKWKLLTGYPGCGYWFPPPSQY 457
Pan_troglodytes   -----RNSMAPAKDDSSLPEYSFNTSVHAAIRHGKWKLLTGYPGCGYWFPPPSQY 458
Macaca_mulatta    -----RNSMAPAKDDSSLPEYSFNTSVHAAIRHGKWKLLTGYPGCGYWFPPPSQY 458
Callithrix_jacchus -----RNSTAPAKDDSSLPEHSFNTSVHAAIRHGNWKLLTGYPGCGYWFPPPSQY 458
Canis_lupus_familiaris -----GQSLAPAKDDSSHPGYFSFNTSLHAAIRHGKWKLLTGYPGCGCWFPFPPSQH 459
Felis_catus       -----GKSLAPAKDDSSHPAYLAFNTSLHAAIRHGKWKLLTGYPGCGCWFPFPPSPY 459
Bos_taurus        -----GRSMALAKDESSLLEYSAFNTSIHAAVRHQWKLLTGYPGCGHWFPFPPSQY 457
Equus_caballus    -----GRSMAPAKHDSFLPEYSTFNTSIHAAIRHKNWKLLTGYPGCGYWFPPPSQY 449
Latimeria_chalumnae -----RADEHLTKEYSMAWANSIFNVSIHAAIRLKNWKLLTGDPGCDHWFPFPPSLF 456
Xenopus_tropicalis -----SPNTRDQAPTHAATKWQDSPFNVSVHAAIRHGKWKLLTGPNPGCSHWFPFPPSK- 445
Rhinatrema_bivittatum -----SKNSTIPVSKDCSFIWKDSVFNIITHAAIRYKNWKLLTGDPGCSHWFPFPPSVS 451
.....430.....440.....450.....460.....470.....480

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Pavo_muticus      -SESQIQSYDPPMKRLWLFDIVRDPEEKYELSEKHPHVVKLLSRLQYYYKRSVPVFYPD 497
Pavo_cristatus    -SESQIQSYDPPMKRLWLFDIVRDPEEKYELSEKHPHVVKLLSRLQYYYKRSVPVFYPD 497
Gallus_gallus     -SESQIQSYDPPMKRLWLFDIVRDPEEKYELSEKYPHVVKLLSRLQYYYKRSVPVFYPD 497
Chelonia_mydas    -SESKILSSDPPTKLWLFDVVKDAEERNDLSEKYPGVVKLLSRLQYYYKHSVPVFYPD 518
Mus_musculus      -NVSEIPPVDPPTKLWLFDINQDPEERHDVSREHPHIVQNLLSRLQYYHEHSVPVSHFPP 517
Rattus_norvegicus -NISEVPSVDSPTKTLWLFDINRDPEERHDVSREHPHIVQNLLSRLQYYHEHSVPVSYFPP 511
Homo_sapiens      -NVSEIPSSDPPTKLWLFDIDRDPEERHDLGREYPHIVTKLLSRLQFYHKHSVPVYFPA 516
Pan_troglodytes   -NVSEIPSSDPPTKLWLFDIDRDPEERHDLGREYPHIVTKLLSRLQFYHKHSVPVYFPA 517
Macaca_mulatta    -NVSEIPSSDPPTKLWLFDIDRDPEERHDLGREYPHIVTKLLSRLQFYHKHSVPVYFPA 517
Callithrix_jacchus -NVSEIPSLDPPTKLWLFDIDRDPEERHDLGREYPHIVTKLLSRLQFYHKHSVPVYFPA 517
Canis_lupus_familiaris -NVSVIPSSDPPTKLWLFDIDQDPEERHDLSDPHPHVVKLLSRLQFYHKHSVPVYFPA 518
Felis_catus       -NDSVIPSSDPPTKLWLPFDIDQDPEERHDLSDYPHIVEQLLSRLQFYHKHSVPVHFFPA 518
Bos_taurus        -NVSVIPSSDPPAKTLWLFDIDQDPEERHDLGREYPHIVKLLSRLQFYQKHSVPVYFPA 516
Equus_caballus    -NGSAIPSSDPPTKLWLFDIDQDPEERHDVSREHPHVVRQLLSRLQFYHKHSVPVYFPA 508
Latimeria_chalumnae -NGTEVLSSDQAGKIWLFDVVDPEEKNDLTKYPEIVLYLLSRLQYYQNNVPIHYPFA 515
Xenopus_tropicalis --HSEIPSPDGSNKTLLWLFDIVQDPEERYDLSEKFPDVVTMLLFRQLNYIISVPIDYPD 503
Rhinatrema_bivittatum VPYSQSLSSDTPSKNLWLFDIVQDPEERNDLSEKYPVSLVKKLLSRLQEDYQKHSVPVFFPD 511
.....490.....500.....510.....520.....530.....540

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/ARSDs Date: Tue Feb 1 11:24:08 2022

Page 4 of 4

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      ** ***  .*.*.*
Pavo_muticus      EDPQCDPVATGVWGPWA  514
Pavo_cristatus    EDPQCDPVATGVWGPWA  514
Gallus_gallus     EDPQCDPAATGVWGPWA  514
Chelonia_mydas    DDPRCDPAATGAWGPWM  535
Mus_musculus      LDPRCDPKSTGVWSPWM  534
Rattus_norvegicus LDPRCDPKGTGVWSPWM  528
Homo_sapiens      QDPRCDPKATGVWGPWM  533
Pan_troglodytes   QDPRCDPKATGVWGPWM  534
Macaca_mulatta    QDPRCDPKATGVWGPWM  534
Callithrix_jacchus QDPRCDPKATGVWGPWM  534
Canis_lupus_familiaris QDPRCDPKGTGAWGPWI  535
Felis_catus       QDPRCDPKGTGAWGPWV  535
Bos_taurus        QDPRCDPKATGAWGPWM  533
Equus_caballus    QDPRCDPKSTGAWGPWM  525
Latimeria_chalumnae EDPACDPEHSGAWGPWA  532
Xenopus_tropicalis DDPRCDPGDKGVWGPWE  520
Rhinatremabivittatum DDPRCDPEATGVWGPWT  528
.....550.....

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