

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/TRIMM36.p Tue Feb 14:48:20 2022

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                                     :.***:** ** *:***: *****.:****:*.:
Pavo_muticus      -MEGDG-----LEP-EVATKSIERELICPACKELFTHPLILPCQHNLCCHKCVKDI 48
Pavo_cristatus    -MEGDG-----LEP-EVATKSIERELICPACKELFTHPLILPCQHNLCCHKCVKDI 48
Gallus_gallus     -MEGDG-----LEP-EVATKSIERELICPACKELFTHPLILPCQHNLCCHKCVKDI 48
Chelonia_mydas    MCSGDAGSEFAYIMKLIKKGKVTIKNIERELICPSCKELFTHPLILPCQHSICHKCVKEI 60
Mus_musculus      --MEGDASDS-----QVTIKNIEKELICPACKELFTHPLILPCQHSVCHKCVKEL 48
Rattus_norvegicus MSESSEMSEFGYIMELLAKGKVTIKNIEKELICPACKELFTHPLILPCQHSVCHKCVKEL 60
Canis_lupus_familiaris MSESEEMSEFGYIMELLARGKVTIKNIERELICPACKELFTHPLILPCQHSICHKCVKEL 60
Bos_taurus        MSESSEVSEFGYIMELLARGKVTIKNIERELICPACKELFTHPLILPCQHSICHKCVKEL 60
Equus_caballus    MSESSEISEFGYIMELLARGKVTIRNIERELICPACKELFTHPLILPCQHSICHKCVKEL 60
Homo_sapiens      MEGDG-----SDSPVTIKNIERELICPACKELFTHPLILPCQHSICHKCVKEL 48
Pan_troglodytes   MSESSEMSEFGYIMELIAKGKVTIKNIERELICPACKELFTHPLILPCQHSICHKCVKEL 60
Macaca_mulatta    MSESSEMSEFGYIMELLAKGKVTIKNIERELICPACKELFTHPLILPCQHSICHKCVKEL 60
Callithrix_jacchus MSESSEMSEFGYIMELLAKGKVTIKNIERELICPACKELFTHPLILPCQHSICHKCVKEL 60
Xenopus_tropicalis MNGSDEIHQFGFIVDTIQKSQGVKNIERELVCPSCKEYLTHPLILPCQHNICHKCLKEL 60
Latimeria_chalumnae MSESDDINEFGSIVEKISKGEIRIRNIERELICPVCKELFTHPLILPCQHSVCHKCVKEL 60
Rhinatrema_bivittatum MSGSDEIHEFGFIVEAIGKRVQTIKNIERELICPSCKELFTHPLILPCQHSICHKCVKEL 60
1.....10.....20.....30.....40.....50.....60

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          :      :*      :  *  *  .***      .  *  .  :  **:: *  .          **
Pavo_muticus      LF-AVEDSLADAGSESSNQSSPR-FRISSASMDK---IDRISRSASQRRSFG--WRGRKR 101
Pavo_cristatus    LF-AVEDSLADAGSESSNQSSPR-FRISSASMDK---IDRISRSASQRRSFG--WRGRKR 101
Gallus_gallus     LF-TVEDSFADAGSESSNQSSPR-FRISSASMDK---IDRISRSASQRRSFG--WRGRKR 101
Chelonia_mydas    LFFTLEDSFTDLGSESSNQSSPR-IRIHSPSLDR---IDRLNRS-----GWKR 104
Mus_musculus      LL-SLDDSFNDVASDSSNQSSPR-LRLTSPSMDK---IDKINRPG-----WKR 91
Rattus_norvegicus LL-SLDDSFNDVASDSSNQSSPR-LRLTSPSMDK---IDKINRPG-----WKR 103
Canis_lupus_familiaris LL-TLDDSFIDVGSDNSNQSSPR-LRLPSPSMDK---IDRLSRPG-----WKR 103
Bos_taurus        LL-MLDDSFNDVGSDNSNQSSPR-LRLPSPSVDK---IDRISRPG-----WKR 103
Equus_caballus    LL-TVDDSFNDVGSDNSNQSSPR-LRLPSPSVDK---IDRISRPQKKI----LNGWKR 110
Homo_sapiens      LL-TLDDSFNDVGSDNSNQSSPR-LRLPSPSMDK---IDRINRP-----GWKR 91
Pan_troglodytes   LL-TLDDSFNDVGSDNSNQSSPR-LRLPSPSMDK---IDRINRP-----GWKR 103
Macaca_mulatta    LL-TLDDSFNDVGSDNSNQSSPR-LRLPSPSMDK---IDRINRP-----GWKR 103
Callithrix_jacchus LL-TLDDSFNDVGSDNSNQSSPR-LRLSPSMDK---IDRINRPGHKKI----LNGWKR 110
Xenopus_tropicalis LYLTLEDS-TDVSSEASTPGSPR-IRMTSPSVER---IDRLVRSASQRRSLGRRGRGSKR 115
Latimeria_chalumnae FLLYHEDSVTEVGSESSNPGSPRSVGFSGPSIER---IDRLVRSASATYSS-----RKR 111
Rhinatrema_bivittatum LFLCHEDFTDTCSDTAPGSPR-TKVLSPNAEROEKIDRLVRSGS-----KR 107
.....70.....80.....90.....100.....110.....120

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          :.***: * :.**** *:*****:*****.***:****.***** *****
Pavo_muticus      NSLTPTRTTMFPCPGCLHDIDLGERGVNGLFRNFTLETIVERHRQAARAAIAIMCDFCKPP 161
Pavo_cristatus    NSLTPTRTTMFPCPGCLHDIDLGERGVNGLFRNFTLETIVERHRQAARAAIAIMCDFCKPP 161
Gallus_gallus     NSLTPTRTTMFPCPGCLHDIDLGERGVNGLFRNFTLETIVERHRQAARAAIAIMCDFCKPP 161
Chelonia_mydas    NSLTPTRTTIFPCPGCRHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDVCKPP 164
Mus_musculus      NSLTPTRTTTFPCPGCEHDVDLGERGVNGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 151
Rattus_norvegicus NSLTPTPTTMFPCPGCEHDVDLGERGVNGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 163
Canis_lupus_familiaris GSLTPTRTTTFPCPGCEHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 163
Bos_taurus        NSLTPTRTTTFPCPGCEHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 163
Equus_caballus    NSLTPTRTTTFPCPGCEHDVDLGERGISGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 170
Homo_sapiens      NSLTPTRTTTFPCPGCEHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 151
Pan_troglodytes   NSLTPTRTTVFPCPGCEHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 163
Macaca_mulatta    NSLTPTRTTIFPCPGCEHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 163
Callithrix_jacchus NSLTPTRTTVFPCPGCEHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 170
Xenopus_tropicalis NSLTPKITTISCPGCLHDVDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDYCKPP 175
Latimeria_chalumnae SSLTPTRTTTFPCPGCQCDIDLGERGVNGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 171
Rhinatrema_bivittatum NTLNAKFTTTLACPGCQHDIDLGERGINGLFRNFTLETIVERYRQAARAATAIMCDLCKPP 167
.....130.....140.....150.....160.....170.....180

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.*:*****:.*:.*:*****: ***** *:*****:.*:.*:*****:.*:.*:
Pavo_muticus      PQESTKSCMDCSASYCNECFKIHPWGTILKAQHEYVGPTTNVRLKVLMPCEHEMERVNMY 221
Pavo_cristatus    PQESTKSCMDCSASYCNECFKIHPWGTILKAQHEYVGPTTNVRLKVLMPCEHEMERVNMY 221
Gallus_gallus     PQESTKSCMDCSASYCNECFKVHHPWGTIVKAQHEYVGPTTNIRLKVLMCPCEHEMERVNMY 221
Chelonia_mydas    PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKILMCPCEHEMERVNMY 224
Mus_musculus      PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKVLMCPCEHETERINMY 211
Rattus_norvegicus PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKILMCPCEHETERINMY 223
Canis_lupus_familiaris PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKILMCPCEHETERINMY 223
Bos_taurus        PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKILMCPCEHETERINMY 223
Equus_caballus    PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKILMCPCEHETERINMY 230
Homo_sapiens      PQESTKSCMDCSASYCNECFKIHPWGTILKAQHEYVGPTTNFRPKILMCPCEHETERINMY 211
Pan_troglodytes   PQESTKSCMDCSASYCNECFKIHPWGTILKAQHEYVGPTTNFRPKILMCPCEHETERINMY 223
Macaca_mulatta    PQESTKSCMDCSASYCNECFKIHPWGTILKAQHEYVGPTTNFRPKILMCPCEHETERINMY 223
Callithrix_jacchus PQESTKSCMDCSASYCNECFKIYHPWGTIVKAQHEYVGPTTNFRPKILMCPCEHETERINMY 230
Xenopus_tropicalis AQESTKSCMDCNASFCNECFKINHPWGTIVKAQHEYVGPTTNQFRPKVLMCPCEHEMEKVNMY 235
Latimeria_chalumnae PQEATKSCMDCCKASYCNECFKIHPWGTIVKAQHEYVGPTTNFRPKVLMCPCEHEMEKVNMY 231
Rhinatrema_bivittatum PQESTKSCMDCNANYCNECFKIHPWGTIVKAQHDYVGPTTMHFRPKILMCPCEHEMERVNMY 227
.....190.....200.....210.....220.....230.....240

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**:*:* ***** *:***: ***:** :*****:.*:.*:***:.*:.*:
Pavo_muticus      CEICRRPVCHLCKLGGSHANHRVTMMSTAYKTLKEKLSKDIEYLISKESQVKAHISQLGL 281
Pavo_cristatus    CEICRRPVCHLCKLGGSHANHRVTMMSTAYKTLKEKLSKDIEYLISKESQVKAHISQLGL 281
Gallus_gallus     CEICRRPVCHLCKLGGSHANHRVTMMSTAYKTLKEKLSKDIEYLISKESQVKAHISQLGL 281
Chelonia_mydas    CEICRRPVCHLCKLGGSHANHRVTMMSTAYKTLKEKLSKDIEYLISKESQVKGQISELGL 284
Mus_musculus      CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDFLIGKESQVKSQISELNL 271
Rattus_norvegicus CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDFLIGKESQVKSQISELNL 283
Canis_lupus_familiaris CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 283
Bos_taurus        CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 283
Equus_caballus    CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 290
Homo_sapiens      CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 271
Pan_troglodytes   CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 283
Macaca_mulatta    CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 283
Callithrix_jacchus CELCRRPVCHLCKLGGNHSNHRVTMMSSAYKTLKEKLSKIDIDYLIGKESQVKSQISELNL 290
Xenopus_tropicalis CEICRRPVCHLCKLGGAHANHRVTMMSTAYKTLKEKLTGKISYLSISKESQVKDQISELEI 295
Latimeria_chalumnae CEMCRRPVCHLCKLGGSHANHRVTSMSSAYRILKEKLAKSIHYLISKEDQVKTOIFELEH 291
Rhinatrema_bivittatum CEICKRLVCHLCKLGGTHANHKVTMMSTAYKTLKEKLSKGIGYLSIKESSEVKNQISELEH 287
.....250.....260.....270.....280.....290.....300

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Pavo_muticus      LLKETECNGERAKEEASQSFEKLINILEEKSAALRAIEASKNLRRLDKLRTQAEFYQGLL 341
Pavo_cristatus    LLKETECNGERAKEEASQSFEKLINILEEKSAALRAIEASKNLRRLDKLRTQAEFYQGLL 341
Gallus_gallus     LLKETESNGERAKEEASQSFEKLINILEEKSAALRAIEVSKNLRRLDKLRTQAEFYQGLL 341
Chelonia_mydas    LMKETECNGERAKEEASNNFDTLFDVLEERRSAALRAIEASKNLRRLDKLRTQAEFYQGLL 344
Mus_musculus      LMKETECNGERAKEEALAHFEKLFEILEDRKSSVLKAIKASKKLRLDKFHTQMEFYQGLL 331
Rattus_norvegicus LMKETECNGERAKEEALAHFEKLFEILEDRKSSVLKAIKASKKLRLDKFHTQMEFYQGLL 343
Canis_lupus_familiaris LMKETECNGERAKEEAIHFELFEKLFEILEERKSSVLKAIKASKKLRLDKFHTQMEFYQGLL 343
Bos_taurus        LMKETECNGERAKEDAIHFELFEKLFEILEDRKSSVLKAIKASKKLRLDKFHTQMEFYQGLL 343
Equus_caballus    LMKETECNGERAKEEAIHFELFEKLFEVLEERKSSVLKAIKASKKLRLDKFHTQMEFYQGLL 350
Homo_sapiens      LMKETECNGERAKEEAIHFELFEKLFEVLEERKSSVLKAIDSSKKLRLDKFHTQMEFYQGLL 331
Pan_troglodytes   LMKETECNGERAKEEAIHFELFEKLFEVLEERKSSVLKAIDSSKKLRLDKFHTQMEFYQGLL 343
Macaca_mulatta    LMKETECNGERAKEEAIHFELFEKLFEILEERKSSVLKAIDSSKKLRLDKFHTQMEFYQGLL 343
Callithrix_jacchus LMKETECNGERAKEEAIHFELFEKLFEILEERKSSVLKAIDSSKKLRLDKFHTQMEFYQGLL 350
Xenopus_tropicalis LIKQTESNGEKAKEDATYNFEKLYNILEERKSFMRSIENSKSLRLEKLKNOVEEYQGLL 355
Latimeria_chalumnae LIEQTESNGONARKEADAQFERLFKILEERQECITQSIEDSRLSRLEKLRSQVEEYQGLL 351
Rhinatrema_bivittatum LIKRTCECNGDKAEFEATGNFEKLFNVLKASVIKSIKNTKAVKLDKLNQKEEFOGLL 347
.....310.....320.....330.....340.....350.....360

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**.....*****:***** ** * *:***:*** * *** ..*:::: :::
Pavo_muticus      ENNGLVGYAQAEVLKETDQSCFVQTAKQLHIRIQKATESLKSFSPAESSFEDFVVDITKQ 401
Pavo_cristatus    ENNGLVGYAQAEVLKETDQSCFVQTAKQLHIRIQKATESLKSFSPAESSFEDFVVDITKQ 401
Gallus_gallus     ENSGLVGYAQAEVLKETDQSCFVQTAKQLHVRIQKATESLKSFSPAESSFEDFVVDITAKQ 401
Chelonia_mydas    ENNGLVGYAQAEVLKETDQSCFVQTAKQLHVRIQKATESLKSFSPAQTSFEDYVVDITKQ 404
Mus_musculus      ENNGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 391
Rattus_norvegicus ENNGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 403
Canis_lupus_familiaris ENNGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 403
Bos_taurus        ENNGLVGYAQAEVLKETDQSCFVQTAKQLHVRIQKATESLKSFSPAQTSFEDYVVNISKQ 403
Equus_caballus    ENSGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 410
Homo_sapiens      ENNGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 391
Pan_troglodytes   ENSGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 403
Macaca_mulatta    ENNGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 403
Callithrix_jacchus ENNGLVGYAQAEVLKETDQSCFVQTAKQLHLRIQKATESLKSFSPAQTSFEDYVVNISKQ 410
Xenopus_tropicalis ENNGLVGYAQAEVLKETDHSQCFVQIAKQLHIRIQKASDSLKSFRPAAQPGFEEYFLDVAQE 415
Latimeria_chalumnae ENSGLVGYAQAEVLKETDQSCFVQTAKELHTRVQKATESLKTFCPAAHPSFQEFVLDVSKE 411
Rhinatrema_bivittatum ENNGLVGYAQAEVLKETDQSCFVQTAKILHVRIQKAAESLKCFRPAALSSFEFVLDVSKE 407
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      EVILDDLSFYSSGLEIPEINEEQCRMYNKAVISWESSGKTDPAADMVVLQYRKRNRREEESA 461
Pavo_cristatus    EVILDDLSFYSSGLEIPEINEEQCRMYNKAVISWESSGKTDPAADMVVLQYRKRNRREEESA 461
Gallus_gallus     EVILDDLSFYSSGLEIPEINEEQCRMYNKAVISWESSGKTDPAADMVVLQYRKRNRREEESA 461
Chelonia_mydas    EEVLGDLSFYSSGLDVPEINEEESRMYNKALICWEHLVKEDSADTYILEYRKLNREEENA 464
Mus_musculus      TEVLGELSFFSSGIDVPEINEEQSKVYNNALIDWHHPEK-DKADSYVLEYRKINRDEEMI 450
Rattus_norvegicus TEVLGELSFFSSGIDVPEINEEQSKVYNNALIDWHHPEK-DKADSYVLEYRKINRDEEMI 462
Canis_lupus_familiaris TELLGELSFFSSGIDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 462
Bos_taurus        TELLGELSFFSSGVDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 462
Equus_caballus    TELLGELSFFSSGVDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 469
Homo_sapiens      TELLGELSFFSSGIDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 450
Pan_troglodytes   TELLGELSFFSTGIDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 462
Macaca_mulatta    TELLGELSFFSSGIDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 462
Callithrix_jacchus TELLGELSFFSSGIDVPEINEEQSKVYNNALINWHHPEK-DKADSYVLEYRKINRDEEMI 469
Xenopus_tropicalis EDLLGLIAFS-KALAMPEINMEQSKIYNKARICWQEPSSLSADSYVLEYRRLDKNEDLL 474
Latimeria_chalumnae EDLLCDLSFT-KVPGVPVIKKCCQVYNESLICWQEPQDITLFPVDHYVLEYRKLEKDDDSP 470
Rhinatrema_bivittatum KEILENVSFS-RALDVPEINEELSRINYNKALICWQQRADTLAADTYILEYRKLGKEDDFT 466
.....430.....440.....450.....460.....470.....480

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Pavo_muticus      MWQEVEVYS-KSKVISDLDDSSYAFRVRGYKGSICSSWSKEVILRTPAPVLSFLFDDK 520
Pavo_cristatus    MWQEVEVYS-KSKVISDLDDSSYAFRVRGYKGSICSSWSKEVILRTPAPVLSFLFDDK 520
Gallus_gallus     MWQEAEVYS-KSKVISDLDDSSYAFRVRGYKGSICSSWSKEVILRTPAPVLSFLFDDK 520
Chelonia_mydas    TWQIEIACS-KSKVISDLNNSYAFRVRGYKGSICSPWSREVILHTPPAPVLSFLFDDK 523
Mus_musculus      SWNEIEVHG-TSKVVSNLNSPYAFVRVAYRGSIKSPCSRELILHTPPAPVLSFLFDEK 509
Rattus_norvegicus SWNEIEVHG-TSKVVSNLNSPYAFVRVAYRGSIKSPCSRELILHTPPAPVLSFLFDEK 521
Canis_lupus_familiaris SWNEIEVCG-TSKVISDLNSCNYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 521
Bos_taurus        SWNEIEVSG-TSKVISDLNSCNYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 521
Equus_caballus    SWNETEVCG-TSKMISELDNNSYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 528
Homo_sapiens      -WNEIEVCG-TSKIIQDLNSSTYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 508
Pan_troglodytes   -WNEIEVCG-TSKIIQDLNSSTYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 520
Macaca_mulatta    -WNEIEVCG-TSKIIQDLNSSTYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 520
Callithrix_jacchus SWNEAEVCG-TSKIIQDLNSSTYAFRVRAYKGSICSPCSRELILHTPPAPVLSFLFDEK 528
Xenopus_tropicalis -WNEIETAN-TSKILSDLELNSQYCFRVKGRGSTSTPLSKEVVLHTPPAPVLSFLFDDK 532
Latimeria_chalumnae -WQISEEVHSSSTVISDLDTNSVYFRVKGCRNTVCSPYSKEVVSFHTPPAPVFRFLFDDK 529
Rhinatrema_bivittatum -WKEIEVSG-TSQVISGLEINSAYAFVRVGRGSAKSPYSKDVIFHTPPAPVLSFLFDDK 524
.....490.....500.....510.....520.....530.....540

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*****:* :* .* **.* ** :** *:::* * * *:*****:***:***** :
Pavo_muticus      CGYNSERLLLLNPRTTVESRAGFPLLLRAERMQFGCYTSLNVIIGDTGIAKGKHFWAFHV 580
Pavo_cristatus    CGYNSERLLLLNPRTTVESRAGFPLLLRAERMQFGCYTSLNVIIGDTGIAKGKHFWAFHV 580
Gallus_gallus     CGYNSERLLLLNPRTTVESRAGFPLLLRAERMQFGCYTSLNVIIGDTGIAKGKHFWAFRV 580
Chelonia_mydas    CGYNSERLMLNPRRTSVESRAGFPLLLGAERIOVGCYMTLDYIIGDTGITKGKHFWAFHV 583
Mus_musculus      CGYNTEHLLLLNLKRDRVESRAGFNVLAAERIOVGHYTSLDYIIGDVGITKGKHFWACRV 569
Rattus_norvegicus CGYNTEHLLLLNLKRDRVESRAGFNVLAAERIOVGHYTSLDYIIGDVGITKGKHFWACRV 581
Canis_lupus_familiaris CGYNNEHLLLLNLKRDRVESRAGFNLLAAERIOVGYTSLDYIIGDVGITKGKHFWAFRV 581
Bos_taurus        CGYNNEHLLLLNLKRDRVESRAGFNLLAAERIOVGYTSLDYIIGDVGITKGKHFWAFRV 581
Equus_caballus    CGYNNEHLLLLNLKRDRVESRAGFNLLSADRIQVGYTSLDYIIGDVGITKGKHFWAFRV 588
Homo_sapiens      CGYNNEHLLLLNLKRDRVESRAGFNLLAAERIOVGYTSLDYIIGDVGITKGKHFWAFRV 568
Pan_troglodytes   CGYNNEHLLLLNLKRDRVESRAGFNLLAAERIOVGYTSLDYIIGDVGITKGKHFWAFRV 580
Macaca_mulatta    CGYNNEHLLLLNLKRDRVESRAGFNLLAAERIOVGYTSLDYIIGDVGITKGKHFWAFRV 580
Callithrix_jacchus CGYNNEHLLLLNLKRDRVESRAGFNLLAAERIOVGYTSLDYIIGDVGITKGKHFWAFRV 588
Xenopus_tropicalis CGYNKEHMLNLAQRDTVESMAGISLLLGAERVQVGCYTCLDYIIGDVGITKGRHFWAFSI 592
Latimeria_chalumnae CGYNTEHLNVNKKRDSVECVAGFSLLLGAERIHVGCYTSLDYIIGDVGITKGKHFWAFQI 589
Rhinatrema_bivittatum CGYNKEHLVLNSKRDSVESMAGFPLLLGAERIOVGCYTCLDYIIGDVGITKGKHFWAFHV 584
.....550.....560.....570.....580.....590.....600

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:::*****.*.*. *:*****:***
Pavo_muticus      EAYSYLKVGGVVSSSTKIQKFFHNTHDVTSPR----- 611
Pavo_cristatus    EAYSYLKVGGVVSSSTKIQKFFHNTHDVTSPR----- 611
Gallus_gallus     EAYSYLKVGGVVSSSTKIQKFFHNTHDVTSPR----- 611
Chelonia_mydas    ESYSYLKVGGVASNTKLQEWLHNPRDVTSPR----- 614
Mus_musculus      EPYSYLKVGGVASSDKLQEWLRSRDAASPR----- 600
Rattus_norvegicus EPYSYLKVGGVASSDKLQEWLRSRDAASPR----- 612
Canis_lupus_familiaris EPYSYLKAGVASSDKLQEWLRSRDAVSPR----- 612
Bos_taurus        EPYSYLKAGVASSDKLQEWLRSRDAVSPR----- 612
Equus_caballus    EPYSYLKVGGVASSDKLQEWLRSRDAVSPR----- 619
Homo_sapiens      EPYSYLKVGGVASSDKLQEWLRSRDAVSPR----- 599
Pan_troglodytes   EPYSYLKVGGVASSDKLQEWLRSRDAVSPRVLTMNGACRTGSSLGASMSEFGLGHCCCT 640
Macaca_mulatta    EPYSYLKVGGVASSDKLQEWLRSRDAVSPR----- 611
Callithrix_jacchus EPYSYLKVGGVASSDKLQEWLRSRDAVSPR----- 619
Xenopus_tropicalis ESHSYLVKVGVASDIKLQEWLHNPRDISSPR----- 623
Latimeria_chalumnae DPHSYLVKVGVASDAKLQEWLHNPRDISSPR----- 620
Rhinatrema_bivittatum EPYSYLKVGGVASDTKLQEWLQSPRNVSSPR----- 615
.....610.....620.....630.....640.....650.....660

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:*****:* * ***** :**.****** . * :*:
Pavo_muticus      --SEQDSGHDGSGSEDACLDSSQPFTLVTLGMKKFFIPKAAAESRAAADPKDASSRILPLP 669
Pavo_cristatus    --SEQDSGHDGSGSEDACLDSSQPFTLVTLGMKKFFIPKAAAESRAAADPKDAASRILPLP 669
Gallus_gallus     --SEQDSGHDGSGSEDACLDSSQPFTLVTLGMKKFFIPKAAADTRAADPKDPAASRILPLP 669
Chelonia_mydas    --YEQDSGHDGSGSEDTCFDSQPFTLITLGMNKKFFIPKAP-----TAPKDSANRILPMP 666
Mus_musculus      --YEQDSGHDGSGSEDACFDSSQPFTLVITIGMKKFFIPKSP-----TSSNEPENRVLMPMP 652
Rattus_norvegicus --YEQDSGHDGSGSEDAYFDSQPFTLVITIGMKKFFIPKSP-----TSSNEPENRVLMPMP 664
Canis_lupus_familiaris --YEQDSGHDGSGSEDACFDSSQPFTLVITIGMKKFFIPKSA-----TSANEPENRVLMPMP 664
Bos_taurus        --YEQDSGHDGSGSEDACVDSSQPFTLVITIGMKKVFIKSP-----TSSNEPENRVLMPMP 664
Equus_caballus    --YEQDSGHDGSGSEDASFDSSQPFTLVITIGMKKFFIPKSP-----TSSNEPENRVLMPMP 671
Homo_sapiens      --YEQDSGHDGSGSEDACFDSSQPFTLVITIGMKKFFIPKSP-----TSSNEPENRVLMPMP 651
Pan_troglodytes   LLYEQDSGHDGSGSEDACFDSSQPFTLVITIGMKKFFIPKSP-----TSSNEPENRVLMPMP 694
Macaca_mulatta    --YEQDSGHDGSGSEDACFDSSQPFTLVITIGMKKFFIPKSP-----TSSNEPENRVLMPMP 663
Callithrix_jacchus --YEQDSGHDGSGSEDACFDSSQPFTLVITIGMKKFFIPKSP-----TSSNDPENRVLMPMP 671
Xenopus_tropicalis --YDQDSGHDGSGSEDTSYDSSQPFTLATIGMKKLFIPK-SS-----HVTCTAAERVIPPLP 675
Latimeria_chalumnae --YDQDSGHDGSGSEDTSFDLLQPFITLVAVGMKFFIPKGSS-----ATSNDYPNRLMPMP 673
Rhinatrema_bivittatum --YDQDSGHDGSGSEDACFDTSQPFTLVITIGMRKFFIPK-IS-----NTSSELFNRVLSMP 667
.....670.....680.....690.....700.....710.....720

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/TRIMM36.p Tue Feb 1 14:48:20 2022

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      *: ** *...: *** . *****: *: * :*:***:*.....* : :...: ::
Pavo_muticus      SCMGICLDCDNGKVGFDASHMKCLFCEVECSGIMYPTFALMGGAATHLMEAIPAKYLE 729
Pavo_cristatus    SCMGICLDCDNGKVGFDASHMKCLFCEVECSGIMYPTFALMGGAATHLMEAIPAKYLE 729
Gallus_gallus     SCMGICLDCDNGKVGFDASHMKCLYCEVECSGIMYPTFALMGGAATHLMEAIPAKYLE 729
Chelonia_mydas    SCIGICLDCDRGKVGFDADHMKCLYERQVDCSSTMYPAFALMGSGAGHLEEAITAKYLE 726
Mus_musculus      TSIGIFLDCDKGKVSFYDMDHMKCLYERQVDCSHTMYPAFALMGSGGIQLEEAITAKYLE 712
Rattus_norvegicus TSIGIFLDCDKGKVSFYDMDHMKCLYERQVDCSHTMYPAFALMGSGGIQLEETITAKYLE 724
Canis_lupus_familiaris TSIGIFLDYDKGRVAFYDMDHMKCLYERQVDCSHTMYPAFALMGSGGIQLEEPITAKYLE 724
Bos_taurus        TSIGVFLDYDKGKVAFYDMDHMKCLYERQVDCSHTMYPAFALMGSGGIQLEESITAKYLE 724
Equus_caballus    TTIGIFLDYDKGKVGFDMDHMKCLYERQVDCSHTMYPAFALMGSGGIQLEEPITAKYLE 731
Homo_sapiens      TSIGIFLDCDKGKVDFYDMDQMKCLYERQVDCSHTLYPAFALMGSGGIQLEEPITAKYLE 711
Pan_troglodytes   TSIGIFLDYDKGKVNFDYDMDQMKCLYERQVDCSHTLYPAFALMGSGGIQLEEPITAKYLE 754
Macaca_mulatta    TSIGIFLDYDKGKVSFYDMDHMKCLYERQVDCSHTLYPAFALMGSGGIQLEEPITAKYLE 723
Callithrix_jacchus TSIGIFLDYDKGKVSFYDMDHMKCLYERQVDCSHTLYPAFALMGSGGIQLEEPITAKYLE 731
Xenopus_tropicalis TRIGICLDYDEGKVGFDANIMKCLYERDVDCIGTMYPAFALLGGGAITHLEEVITANHLD 735
Latimeria_chalumnae DSIGICLDYDRSKVTFYDMDHMKCLYERQVDCSGTMYPAFALMGSGGVHLEEFITVVRVE 733
Rhinatrema_bivittatum SRIGVCLDYDKGNIEFYDADSMKCLYERQVECSGTMYPAFALMGGGGVHLDFFLSVEHLE 727
.....730.....740.....750.....760.....770.....780

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* ..
Pavo_muticus      YQDDI 734
Pavo_cristatus    YQDDI 734
Gallus_gallus     YQDDL 734
Chelonia_mydas    YRDDM 731
Mus_musculus      YEEDV 717
Rattus_norvegicus YEEDV 729
Canis_lupus_familiaris YQEHM 729
Bos_taurus        YQENM 729
Equus_caballus    YQKDM 736
Homo_sapiens      YQEDM 716
Pan_troglodytes   YQEDM 759
Macaca_mulatta    YQEDM 728
Callithrix_jacchus YQENM 736
Xenopus_tropicalis YSHEI 740
Latimeria_chalumnae YPDDT 738
Rhinatrema_bivittatum YPEDM 732
.....

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