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                                                          .. :**.* **  .* .**::**
Mus_musculus                  ---------------------MARKRKPPSSQ---GDPRRYDPDFQGPTAKRTCTDVLCC    36
Rattus_norvegicus             ---------------------MSDSESTEFEDQDLGDPRRYDPDFQGPTTKRSSTDVMCC    39
Homo_sapiens                  MNDT-------------------EKPADTPSEEEDFGDPRTYDPDFKGPVANRSCTDVLCC    42
Pan_troglodytes               MAKKRKP-----PS------IKEKPADTPSEEEDFGDPRTYDPDFKGPVANRSCTDVLCC    49
Macaca_mulatta                MNDT-------------------EKPADTASEEEDFGDPRTYDPDFKGPVSNRSCTDVLCC    42
Callithrix_jacchus            MSDT-------------------EEPAGTPSEEEDFGDSRTYDPDFKGPVANRSCTDVLCC    42
Heterocephalus_glaber         MSDEEES-----PKNPSAEMVFEKRAVSPTGKPEYGDPRTYDPDFKGPVVSRSCTDVVCC    55
Canis_lupus_familiaris        MN----------DKGN--HLLQSRPSSSGL----LCYPNAYDPNFKGPVAKRSCTDVLCC    44
Bos_taurus                    MA----------KKRKPPSIKGDQRSDTHLEGEKYGTPRSYDPHFRGPVVNRSCTDVLCC    50
Equus_caballus                MSRQAGSSWSSWTLGKSGASTIEEPPGSDLEDENFGSPRTFDPDFKGPVADRSCTDVLCC    60
Pavo_muticus                  ---------------------MARKGEASAP-PYGEPRKFDPKFRGPIHNRHCTDVICC    37
Pavo_cristatus                ---------------------MARKGEASAP-PYGEPRKFDPKFRGPIHNRHCTDVICC    37
Gallus_gallus                 ---------------------MARKGEASAP-PYGEPRKFDPKFRGPIHNRHCTDVICC    37
Chelonia_mydas                ---------------------MARKGGASAS-PYGEPRKFDPKFRGPIHNRHCTDILCC    37
Anolis_carolinensis           ---------------------MARKGDPAAS-PYGEPRKFDPKFSGPIHNRHCTDILCC    37
Rhinatrema_bivittatum         ---------------------MAAAGDGNYYGKHGEPRRFDPKFRGPIYNRHCTDVLCC    38
Xenopus_tropicalis            ---------------------MGRRSAAPTS-PFGEPRKFDPKFKGPIGKRHCTDVLCC    37
                              1.......10........20........30........40........50........60

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Mus_musculus                  LIFLLFILGYVLLGLLAWAHGDPRKMAYPTDSQGHFCGQKGTPNENKTVLFYFNIFRCTS    96
Rattus_norvegicus             MIFVLFIMGYILLGLLAWVHGDPRKMAYPTDSQGQFCGQKGTPNENKTVLFYFNIFRCTG    99
Homo_sapiens                  MIFLLCIIGYIVLGLVAWVHGDPRRAAYPTDSQGHFCGQKGTPNENKTILFYFNLLRCTS   102
Pan_troglodytes               MIFLLCIIGYIILGLVAWVHGDPRRAAYPTDSQGHFCGQKGTPNENKTILFYFNLLRCTS   109
Macaca_mulatta                MIFLLCIVGYIVLGLVAWVHGDPRRAAYPTDSQGHFCGQKGTPNENKTILFYFNLLRCTS   102
Callithrix_jacchus            MIFLLCIIGYIVLGLVAWVHGDPRRAAYPTDSQGHFCGQKGTPNENKTILFYFNLLRCTS   102
Heterocephalus_glaber         MIFLVFIMGYILLGLMAWTNGDARRVTYPTDSQGHFCGQKGTPNENKTVLFYFNLLRCAS   115
Canis_lupus_familiaris        IIFILFIIAYILLGLVAWIHGDPRRVAYPTDSKGHFCGQKGTSNENKTILFYFNLFSCTS   104
Bos_taurus                    MIFILFIMAYILLGLAAWVNGDPRRVAYPTDSQGYFCGQKGTPNENKSILFYFNLLTCTS   110
Equus_caballus                IIFILFIIGYILLGLMAWVHGDPRRVAYPTDSNGHFCGQKGTPNENKTILFYFNLFSCTS   120
Pavo_muticus                  VIFIVVILGYIALGIVAWVHGDPRKVIYPTDSYGQFCGQKDTFNENKTILFYFNILKCAS    97
Pavo_cristatus                VIFIVVILGYIALGIVAWVHGDPRKVIYPTDSYGQFCGQKDTFNENKTILFYFNILKCAS    97
Gallus_gallus                 VIFIVVILGYIALGIVAWVHGDPRKVIYPTDSYGQFCGQKDTFNENKTILFYFNILKCAS    97
Chelonia_mydas                VIFIVVILGYIALGILAWVHGDPRKVVYPTDSYGQFCGQKDTINENKTILFYFNILKCAS    97
Anolis_carolinensis           VIFVVVILGYIALGIVAWVHGDPRKVAYPTDSYGQFCGQKDTPNENKTILFYFNILKCAS    97
Rhinatrema_bivittatum         IIFIVVILGYIALGIVAWVHGDPRKAVYPTDSNGQFCGQMGTPNENKTILFYFNILKCAS    98
Xenopus_tropicalis            IIFVVVILGYIALGVVAWIHGDPRKIIYPTDSYGQFCGQKGTPNENKTILMYFNILRCAS    97
                              ........70........80........90.......100.......110.......120

                              . :::.***.* *:**::**: * **::: :          : *:*:.    * ::. :
Mus_musculus                  PSMMLRLQCSTTQICVSRCPERFLTYLDMQFLNKEDKNYWEYYRQFCKAK-AKPVETLRD   155
Rattus_norvegicus             TSMMLRLQCSTTQICVSRCPERFLTYVDMQILNKEDKNYWEYYRQFCKAQ-ARPVETLAD   158
Homo_sapiens                  PSVLLNLQCPTTQICVSKCPEKFLTYVEMQLLYTKDKSYWEDYRQFCKTT-AKPVKSLTQ   161
Pan_troglodytes               PSVLLNLQCPTTQICVSKCPEKFLTYVEMQLLYTKDKSYWEDYRQFCKTT-ATPVKSLTQ   168
Macaca_mulatta                PSVLLNLQCPTTQICVSKCPEKFLTYVEMQLLYTKDKSHWEDYRQFCKTT-AKPVKSLTQ   161
Callithrix_jacchus            PSVMLNLQCPTTQICVSKCPQRFLTYVEMQLLYTKDKSYWEDYRQFCKTT-AKPAKSLTQ   161
Heterocephalus_glaber         PSVMINLQCPTTQICVSKCPETFLTYVEMQILYKKNSSYWEYYRQFCKST-AKPAKSLPE   174
Canis_lupus_familiaris        PSVVVNLQCPTTQICVSKCPEKFLTYMEIEFAHKTSQNYSTYYSQFCKTPFGKPAKALAQ   164
Bos_taurus                    PSVVVNLQCPTTQICVSKCPERFLTYMEIQFKYKNDSEYWTYYSQFCRTTFLKPAETLSQ   170
Equus_caballus                PSLLVNLQCPTTQICVSKCPEKFLTYMEMYFMYRTRENYWSYYSQFCKAASAKPVKAFTQ   180
Pavo_muticus                  PVVLINLQCPTTQLCVSKCPDRFATYIDVQASYRYRPDQWNYFKQYCKPGFNNPRKSVAQ   157
Pavo_cristatus                PVVLINLQCPTTQLCVSKCPDRFATYIDVQASYRYRPDQWNYFKQYCKPGFNNPRKSVAQ   157
Gallus_gallus                 PVVLINLQCPTTQLCVSKCPDRFATYIDVQASYRYRPDQWNYFKQYCKPGFNNPRKSVAQ   157
Chelonia_mydas                PVVLINLQCPTTQLCVSKCPDRFATYIDMQGSYRHNKSYWEYYRQFCKPGFNKPWKSVAQ   157
Anolis_carolinensis           PIVLINLQCPTTQLCVSKCPDRFATYIEMQSSYRN---YWEYFRQFCKPGFNKPRKSVTQ   154
Rhinatrema_bivittatum         PVVLLNLQCPTMQLCVAKCPDRFATYIDMQASYRYNKSYWEYYRQFCKPGFNNPRKSITE   158
Xenopus_tropicalis            PVVLINLQCPTTQLCVSKCPDRFATYLDMQA-NRFNNSYWEYYKQFCKPGFDKPRKSITE   156
                              .......130.......140.......150.......160.......170.......180
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                                 ::  . ***  : **:***:**.**:   **     ..:  * ** *  *.  ::  *:.
Mus_musculus                     LLISGDCPLAVYPSRPFLQRCIPDLSALNGTWTPGSRMKFEDGSGQTRTMLEFREAAN--   213
Rattus_norvegicus                LLSSGDCPLAVYPSRPFLQRCVPDFSAINGNLTLGSRMHFEDGGGQKRTVVELREAAS--   216
Homo_sapiens                     LLLDDDCPTAIFPSKPFLQRCFPDFSTKNGTLTIGSKMMFQDGNGGTRSVVELGIAAN--   219
Pan_troglodytes                  LLLDDDCPTAIFPSKPFLQRCFPDFSTKNGTLTIGSKMVFQDGNGGTRSVVELGIAAN--   226
Macaca_mulatta                   LLLDDDCPTAIFPSKPFLQRCFPDFSTKNGTLTIGSQIVFQDGNGGTRSVIELRDAAN--   219
Callithrix_jacchus               LLLDDDCPTAIFPSKPFLQRCFPDFSTKNGTLTIGSRMVFQDGNGKTRSVIELRDAAN--   219
Heterocephalus_glaber            VLMDDDCPTAVFPSKPFLQRCFPDFVNKNGTLTVGNRILFEDGSGRMRNVLELREATN--   232
Canis_lupus_familiaris           LLLDDDCPTAIFPSKPFLQRCFPDFATNNGTLTVGNKTTFEDGSGRTRNAIELRTAAN--   222
Bos_taurus                       VLLDNDCPSAIYPSKPFLQRCFPDFSTKNGTLTVGNKTVFDDGSGKTRNAAELRRAAN--   228
Equus_caballus                   LLLDDDCPTAIFPSRPFLQRCFPDFSTKNGLLTIGNKTTFNDGSGKTRNVVELRAAAN--   238
Pavo_muticus                     VLRDEDCPSMIIPSRPFLKRCFPDFSTKNGVLTVANQTTFKDGRGKTRNVTDLREAAN--   215
Pavo_cristatus                   VLRDEDCPSMIIPSRPFLKRCFPDFSTKNGVLTVANQTTFKDGRGKTRNVTDLREAAN--   215
Gallus_gallus                    VLRDEDCPSMIIPSRPFLKRCFPDFSTKNGVLTVANQTTFKDGRGKTRNVTDLREAAN--   215
Chelonia_mydas                   VIRDEDCPSMIIPSRPFLKRCFPDFSTKNGILMVANQTTFKDGRGKTRNVTDLREAAN--   215
Anolis_carolinensis              VMRDEDCPSMIVPSRPFLQRCFPDFSTKNGVLTVANQTTFRDGRGKTRNVTDLREAAN--   212
Rhinatrema_bivittatum            VLRDEDCPSMIIPSRPFLKRCFPDFTTKNGVLTVANKTTFKDGRGTARNVTDLREAAN--   216
Xenopus_tropicalis               VLRDEDCPSMIIPSRPFLQRCFPDFSTRNGVLTVANKTEFKDGIGQMRNVTDLRSAANHV   216
                                 .......190.......200.......210.......220.......230.......240

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Mus_musculus                     ---------GISDLINARTIGLKLLEDYATSWKWILIGLTVAMALSWTFLILLRFTAGFL   264
Rattus_norvegicus                ---------GISDVIDARAIGLKVLEDYSTSWKWILIGLTIAMALSWTFLVLLRFTAGFL   267
Homo_sapiens                     ---------GINKLLDAKSLGLKVFEDYARTWYWILIGLTIAMVLSWIFLILLRFIAGCL   270
Pan_troglodytes                  ---------GINKLLDAKSLGLKVFEDYARTWYWILIGLTIAMVLSWIFLILLRFIAGCL   277
Macaca_mulatta                   ---------GINKLLDAKSLGLKVFEDYATTWYWILIGLMIAMVLSWIFLILLRFIAGCL   270
Callithrix_jacchus               ---------GINKLLDAKSLGLKVFEDYATTWYWILIGLTIAMFLSWIFLILLRFIAGCL   270
Heterocephalus_glaber            ---------GINKILDAREIALKVFEDYATTWYWIIVGLTIAMILSWTFLILLKFIAGCL   283
Canis_lupus_familiaris           ---------RVNKILDARAVGMKIFEDYATTWYWILIGLTIAMLLSCMFVILLRFIAGIL   273
Bos_taurus                       ---------GINKALDARAIGVKVFEDYAMTWYWILIGLTIAMFLSWMFVMLLRFTAGLL   279
Equus_caballus                   ---------GVNKILDARAIGMKVFEDYATTWYWILIGLTIAMLLSWMFVILLRVTAGFL   289
Pavo_muticus                     ---------GINNVLDARSVGMKIFEDYAISWYWILIGLFIAMIVSLLFLVLLRFTAGVL   266
Pavo_cristatus                   ---------GINNVLDARSVGMKIFEDYAISWYWILIGLFIAMIVSLLFLVLLRFTAGVL   266
Gallus_gallus                    ---------GINNVLDARSVGMKIFEDYAISWYWILIGLFIAMIVSLLFLVLLRFTAGVL   266
Chelonia_mydas                   ---------GINNVLDARSVGMKIFEDYASSWHWILIGLFIAMIVSLLFLVLLRFTAGVL   266
Anolis_carolinensis              ---------GINNVLDARSVGMKIFEDYASSWYWILIGLFIAMVVSLLFLVLLRFIAGIL   263
Rhinatrema_bivittatum            ---------GINNILDARSIGMKIFEDYANSWYWILIALFIAMIVSLLFLVLLRFTAGVL   267
Xenopus_tropicalis               TTTQHGTKSGINNVLDARSVGMKIFEDYASSWYWILIALFIAMVVSLLFLILLRFTAGVF   276
                                 .......250.......260.......270.......280.......290.......300

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Mus_musculus                     FWFFIFGVLGIIGYGIWYCFLEYSSIQQRPQSTFWMYGFGIQRRVNMFFHLKETWFSMMI   324
Rattus_norvegicus                FWFFIFGVLGIIGYGIWYCFLEYNSIQQKPQSAIWMYGIGIQTRLNMFFHLKETWFSMMI   327
Homo_sapiens                     FWVFMIGVIGIIGYGIWHCYQQYTNLQERPSSVLTIYDIGIQTNISMYFELQQTWFTFMI   330
Pan_troglodytes                  FWVFMIGVIGIIGYGIWHCYQQYTNLQERPSSVLTIYDIGIQTNISMYFELQQTWFAFMI   337
Macaca_mulatta                   FWVFMIGVIGIIGYGIWHCYQQYTNLQEHPRSVLTVYDIGIQTNISMYFELQQTWFTLMI   330
Callithrix_jacchus               FWVFMIGVIGIIGYGIWYCYQEYIKLQEHPSSVLTIYDIGIQTSISLYFQLKQTWFTFMI   330
Heterocephalus_glaber            FWFFVLGVLQVVGYGILYCFQQYTKLQEHPESSLTLYNIGIETNISMYFQLKQTWFILMI   343
Canis_lupus_familiaris           FWVFMVGVIGIIGYGIWHCYQEYNNLQGRPNSHLSVYDLGIQTDLSMYFQLKQTWLAFMI   333
Bos_taurus                       FWIFTFGVIGIIAYGIWRCYLEYSRLQEQPSSRLNAYTIGIQTDISMYFRLKQTWFALMI   339
Equus_caballus                   FWVFILGVIGILAYGIWHCYQEYSKLQGKPNSHLSIYNIGIQTDISMYFQLKQTWFTFMI   349
Pavo_muticus                     FWIFIFGVIGIIGYGIWHCYWEYDHLKGIPGSDLTVYDIGFQTDFRVYLQLRQTWLAFMI   326
Pavo_cristatus                   FWIFIFGVIGIIGYGIWHCYWEYDHLKGIPGSDLTVYDIGFQTDFRVYLQLRQTWLAFMI   326
Gallus_gallus                    FWIFIFGVIGIIGYGTWHCYWEYDHLKGIPGSDLTVYDIGFQTDFRVYLQLRQTWLAFMI   326
Chelonia_mydas                   FWVFILGVIGIIGYGIWHCYWEYDHLQGTPGSDLTIYDIGFQTDFRVYLQLRQTWLAFMI   326
Anolis_carolinensis              FWIFIFGVIGVIGYGIWHCYWEYHHLHGIPGSDLTIYDIGFQTDFRVYLQLRQTWLAFMI   323
Rhinatrema_bivittatum            FWIFIAGVIGVIGYGIFHCYWEYDSLRGMPGSDLTIYDIGFQTDFRVYLQLRQTWLAFMI   327
Xenopus_tropicalis               FWIFIIGVIGVVGYGIWHCFWEYDSLKGVPGADLTIYDIGLQTDFRVYLQLRQTWLAFMI   336
                                 .......310.......320.......330.......340.......350.......360
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                                 :*. :*: ::::***** ** ::* **:***:**. : ::*.** :**:::::*:.** *
Mus_musculus                     ILSAIEIIIIIVLIFLRTRIQVAIILLQEGSKAISYLPSALIYPVLTFILLSICISYWAV   384
Rattus_norvegicus                ILSAIEVVIIIVLIFLRTRIQVAIILLKEGSKAIGYLPSALVYPFLTFILLSICISYWAV   387
Homo_sapiens                     ILCIIEVIVILMLIFLRNRIRVAIILLKEGSKAIGYVPSTLVYPALTFILLSICICYWVV   390
Pan_troglodytes                  ILCIIEVIVILMLIFLRNRIRVAIILLKEGSKAIGYVPSTLVYPALTFILLSICICYWVV   397
Macaca_mulatta                   ILCIIEVIVILMLIFLRNRIRVAIILLKEGSKAIGYVPSTLVYPALTFILLSICICYWVV   390
Callithrix_jacchus               ILCIIEVTVILMLIFLRNRIRVAIILLKEGSKAIGYIPSTLVYPALTFILLSICICYWVV   390
Heterocephalus_glaber            ILCILEVTIILLLIFLRKRIHLAIVLLKEGSKAIGYIPSTLVYPVLTFILLSICFSYWIV   403
Canis_lupus_familiaris           ILCILEVFIILMLIFLRERIRISITLLKEGSKAIGCIPTTLIYPILTFIFISICIAYWAV   393
Bos_taurus                       ILCLLELFIILMLIFLRNRIRISIALLKEGSKAIGYLPSTLIYPALTFFFLSVCISYWAV   399
Equus_caballus                   ILAILEVIVIVMLIFLRDRIRVSIALLKEGSKAIGYIPSTLIYPVLTFIFLSICISYWAV   409
Pavo_muticus                     LLCVVEIVIVLMLIFLRNRIRIAIALLKEGSRAIGYIMSTLFYPIVTFILIAICISYWAV   386
Pavo_cristatus                   LLCVVEIVIVLMLIFLRNRIRIAIALLKEGSRAIGYIMSTLFYPIVTFILIAICISYWAV   386
Gallus_gallus                    ILCVVEIIIILMLIFLRNRIRIAIALLKEGSRAIGYIMSTLFYPIVTFILIAICISYWAV   386
Chelonia_mydas                   ILCIVEVFIILMLIFLRNRIRIAIALLQEGSRAIGYIMSTLFYPIITFILIAICISYWAV   386
Anolis_carolinensis              LLCIVEVVIILMLIFLRNRIRIAIALLKEGSRAIGYIMSTLFYPIITFILIAICISYWAV   383
Rhinatrema_bivittatum            ILCIVEVVIILMLIFLRKRISIAIALLKEGSKAIGYIMSALFYPIVTFILIAICISYWAV   387
Xenopus_tropicalis               LLCIVEVIIILMLIFLRNRIRIAIALLQEGSRAIGYIMSTLFYPIITFILIAICISYWAV   396
                                 .......370.......380.......390.......400.......410.......420

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Mus_musculus                     TAVFLATSGVPIFKVMVPAGQCIYEDETCDPEIFPYTNIPKDCPGASCNFAFYGGRSMYH   444
Rattus_norvegicus                TAVFLATSGVPIFKVMVPEGECIHEDEACDPEIFPNTDIPKACPGASCNFAFYGGRSMYH   447
Homo_sapiens                     TAVFLATSGVPVYKVIAPGGHCIHENQTCDPEIFNTTEIAKACPGALCNFAFYGGKSLYH   450
Pan_troglodytes                  TAVFLATSGVPVYKVIAPGGHCIHENQTCDPEIFNTTEIAKACPGALCNFAFYGGKSLYH   457
Macaca_mulatta                   TAVFLATSGVPVYKVIAPEGHCIHENQTCDPEIFNTTEIAKACPGALCNFAFYGGKSLYH   450
Callithrix_jacchus               TAVFLATSGVPVYKVIAPEGHCIHENQTCDPEIFNTTEIAKACPGALCSFAFYGGKSLYH   450
Heterocephalus_glaber            TALFLATSGVPVYKVSAPEGQCVHENETCDPRIFNTTDVPKACPGALCNFAFYGGKSLYH   463
Canis_lupus_familiaris           IAIYLATSGVPIYKVIAPEGKCKHENTTCNPEIFNTTEIAKACPEAQCNFAFYGGKSLYH   453
Bos_taurus                       VALYLATSGAPIYKVIAPQGHCEHENKTCDPVGFNTTEIAKACPGAQCHFAFYGGKSLYH   459
Equus_caballus                   TAVYLATSGTPIYKVIAPEGQCEHENKTCDPEIFNTTEIAKACPGAHCNFAFYGGKSLYH   469
Pavo_muticus                     TAVFLATSGEPVYKVMANQTLCKYANLTCDPETFNTTNVTKLCPGAQCTFAFYGGESLYH   446
Pavo_cristatus                   TAVFLATSGEPVYKVMANQTLCKYANLTCDPETFNTTNVTKLCPGAQCTFAFYGGESLYH   446
Gallus_gallus                    TAVFLATSGEPVYKVMANQTLCKYANLTCDPETFNTTNVTKLCPGAQCTFAFYGGESLYH   446
Chelonia_mydas                   TAVFLSTSGEPVYKVMANQTLCKYANLTCDPETFNTTNVTKLCVGAQCTFAFYGGESFYH   446
Anolis_carolinensis              TAVFLATSGEPVYKVMANQSLCKYANLTCYPETFNTTNVTKLCPGAQCTFAFYGGESLYH   443
Rhinatrema_bivittatum            TAVFLATSGEPVYKVMANQTLCKYANLTCSPEIFNTTNVTKLCPGAQCTFAFYGGETFYH   447
Xenopus_tropicalis               TAVFMATSGEPIYKVMANKTLCKYADITCIPETFNTTNVTRLCPGAQCTFAFYGGESFYH   456
                                 .......430.......440.......450.......460.......470.......480

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Mus_musculus                     NYILTFQVYNLFAFLWLINFVIALGQCALAGAFASYYWAMKKPDDIPPYPLFTAFGRAVR   504
Rattus_norvegicus                NYIATFQLYNLFAFLWLINFVIALGQCALAGAFASYYWAMRKPEDIPRYPLFTAFGRAVR   507
Homo_sapiens                     QYIPTFHVYNLFVFLWLINFVIALGQCALAGAFATYYWAMKKPDDIPRYPLFTAFGRAIR   510
Pan_troglodytes                  QYIPTFHVYNLFVFLWLINFVIALGQCALAGAFATYYWAMKKPDDIPRYPLFTAFGRAIR   517
Macaca_mulatta                   QYIPTFHVYNLFVFLWLINFVIALGQCALAGAFATYYWAMKKPDDIPRYPLFTAFGRAIR   510
Callithrix_jacchus               QYIPTFHVYNLFVFLWLINFVIALGQCALAGAFATYYWAMKKPDDIPRYPLFTSFGRAIR   510
Heterocephalus_glaber            QYISTLHLYNLFVFLWLINFVLALGQCTLAGAFASYYWAMKKPDNIPALPLFKAFGQAVR   523
Canis_lupus_familiaris           QYVPTFQMFNLFVFFWLINFVIALGQCALAGAFASYYWAFRKPDDIPPHPLFTAFGRAIR   513
Bos_taurus                       QYITTFQLLNLFVFLWLINFVIALGQCALAGAFASYYWALKKPDDIPPYPLFTAFGRAIR   519
Equus_caballus                   QYITTFQIVNLFIFLWLINFVIALGQCTLAGAFASYYWALKKPDDIPPHPLFTAFGRAIR   529
Pavo_muticus                     KYIFIFQLANAFVFLWLVNFAIALGQCTLAGAFASYYWASRKPADIPLWPLFSSFGRAIR   506
Pavo_cristatus                   KYIFIFQLANAFVFLWLVNFAIALGQCTLAGAFASYYWASRKPADIPLWPLFSSFGRAIR   506
Gallus_gallus                    KYIFIFQLANAFVFLWLVNFAIALGQCTLAGAFASYYWASRKPADIPLWPLFSSFGRAIR   506
Chelonia_mydas                   KYIFIFQLSNAFVFLWLVNFAIALGQCTLAGAFASYYWAFRKPADIPPCPLFSSFGRAIR   506
Anolis_carolinensis              RYILVFQIFNVFVFLWLVNFAIALGQCTLAGAFASYYWAFRKPSDIPTCPLFASFGRAIR   503
Rhinatrema_bivittatum            KYIFVFQISNAFVLLWLVNFAIALGQCTLAGAFASYYWAFRKPADIPACPVFSSFGRAIR   507
Xenopus_tropicalis               QYILIFQLCNVFVFLWLVNFSIALGQCTLAGAFASYYWAFKKPADIPACPLFSSFGRAIR   516
                                 .......490.......500.......510.......520.......530.......540
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Mus_musculus                           YHTGSLAFGSLILASVQMFKVIVEYLDRRLKKAQNSAAQFLHCCLQCCFWCLEKMVKFLN   564
Rattus_norvegicus                      YHTGSLAFGSLILAFVQMFKVIVEYLDRRLKKAQNSAAQFLHCCLRCCFWCLEKMVKFLN   567
Homo_sapiens                           YHTGSLAFGSLIIALIQMFKIVLEYLDHRLKRTQNTLSKFLQCCLRCCFWCLENAIKFLN   570
Pan_troglodytes                        YHTGSLAFGSLIITLIQMFKIVLEYLNHRLKRTQNTLSKFLQCCLRCCFWCLENAIKFLN   577
Macaca_mulatta                         YHTGSLAFGSLIIALIQMFKIVLEYLNHRLKRTENTLSKFLQCCLRCCFWCLENAIKFLN   570
Callithrix_jacchus                     YHTGSLAFGSLIIALIQMFKIILEYLDHRLKRTQNTLSKFLQCCLRCCFWCLENAIKFLN   570
Heterocephalus_glaber                  YHTGSLAFGSLILALIQMFKVILEYLDRRLKSAQNNISKFLKCCLGCCFWCLEKMVKFLN   583
Canis_lupus_familiaris                 YHTGSLAFGSLLLALIQMFKIVLEYLDRRLKDPQNNISKFLQCCLKCCFWCLENVIKYFN   573
Bos_taurus                             YHTGSLAFGSLILAIIQMFRLILEYLDKRLQEAQSNISKFLKCCLRCCFWCLEKAVKFLN   579
Equus_caballus                         YHTGSLAFGSLILATIQMVRLVLQYLDNRLKDAQSNISRFLQCCLKCCFWCLEHVVKFLN   589
Pavo_muticus                           YHTGSLAFGALILAIVQLIRVILEYLDHKLKGTQNSFTRFLLCCLKCCFWCLERFLKFIN   566
Pavo_cristatus                         YHTGSLAFGALILAIVQLIRVILEYLDHKLKGTQNSFTRFLLCCLKCCFWCLERFLKFIN   566
Gallus_gallus                          YHTGSLAFGALILAIVQLIRVVLEYLDHKLKGTQNSFTRFLLCCLKCCFWCLEKFLKFIN   566
Chelonia_mydas                         YHTGSLAFGSLILAIVQLIRIILEYLDHKLKGTQNSCTRFLLCCLKCCFWCLEKFIKFIN   566
Anolis_carolinensis                    YHTGSLAFGSLILAIVQLIRVILEYLDHKLKGSQNAFAKFLLCCLKCCFWCLEKFLKFIN   563
Rhinatrema_bivittatum                  YHTGSLAFGSLILAIVQMIRIILEYLDHKLKASQNSFTRFLLCCLKCCFWCLEKFIKFIN   567
Xenopus_tropicalis                     YHTGSLALGSLILALVQFIRIILEYLDHKLKASQNSFAKFILCCLKCCFWCLEKFIKFMN   576
                                       .......550.......560.......570.......580.......590.......600

                                       ::**:*:*:**:*** *:::** *****:::: : *.** *:* ***::*:. :*:***:
Mus_musculus                           RNAYIMIALYGKNFCESTRDAFYLLMRNILKVTVTDEVTYFVLLLGKVLVSGIVGVLAFL   624
Rattus_norvegicus                      RNAYIMIALYGKNFCESTRDAFYLLMRNILKVKVTDEVTYFVLLLGKVLVSGIVGVLAFL   627
Homo_sapiens                           RNAYIMIAIYGRNFCRSAKDAFNLLMRNVLKVAVTDEVTYFVLFLGKLLVAGSIGVLAFL   630
Pan_troglodytes                        RNAYIMIAIYGRNFCRSAKDAFNLLMRNVLKVAVTDEVTYFVLFLGKLLVAGSIGVLAFL   637
Macaca_mulatta                         RNAYIMIAIYGRNFCRSAKDAFNLLMRNVLKVAVTDEVTYFVLFLGKILVAGSIGVLAFL   630
Callithrix_jacchus                     RNAYIMIAIYGRNFCRSAKDAFNLLMRNVLKVAVTDEVTYFVLFLGKILVAGSIGVLAFL   630
Heterocephalus_glaber                  KNAYIMIAIYGKNFCRSARDAFNLLMRNILKVAVTDEVTHFVLLLGKILVSALIGVLAFL   643
Canis_lupus_familiaris                 RNAYVMIAIYGKNFCRSARDAFNLLMRNILKIAVMDKVTDFVLILGKILVAGCIGMLAFL   633
Bos_taurus                             RNAYVMMAIYGKNFCKSARDAFNLLMRNILKIAVMDRVTDFVLILGKILVAGCIGVLAFL   639
Equus_caballus                         RHAYVMIAIYGQNFCRSARDAFNLLMRNVLKVAVMDRVTEFVLTLGKILVAGCIGILAFL   649
Pavo_muticus                           RNAYIMIAIYGKNFCTSAKDAFFLLMRNVVRVAVLDKVTDFLLFLGKILVAGGVGVLAFF   626
Pavo_cristatus                         RNAYIMIAIYGKNFCTSAKEAFFLLMRNVVRVAVLDKVTDFLLFLGKILVAGGVGVLAFF   626
Gallus_gallus                          RNAYIMIAIYGKNFCTSAKEAFFLLMRNVVRVAVLDKVTDFLLFLGKILVAGGVGVLAFF   626
Chelonia_mydas                         RNAYIMIAIYGKNFCTSAKEAFFLLMRNVVRVAVLDKVTDFLLFLGKLLVAGGVGVLAFF   626
Anolis_carolinensis                    RNAYIMIAIYGKNFCASAREAFFLLMRNVVRVAVLDKVTDFLLFLGKILVAGGVGVLAFF   623
Rhinatrema_bivittatum                  RNAYIMIAIYGKNFCTSAKEAFFLLMRNVVRVAILDKVTDFLLFLGKILVAGGVGVLAFF   627
Xenopus_tropicalis                     RNAYIMIAIYGKNFCTSAKDAFFLLMRNVIRVAVLDKVTDFLLFLGKVFVTGSVGVLAFF   636
                                       .......610.......620.......630.......640.......650.......660

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Mus_musculus                           LFTERLQIIVDGPTTLNYYWVPFLTLVFGSYMIAHGFFSVYSMCVETIFICFLEDLERNE   684
Rattus_norvegicus                      LFTERLHEIVEGPTSLNYYWVPFLTLVFGSYLIAHGFFSVYSMCVETIFICFLEDLETNE   687
Homo_sapiens                           FFTQRLPVIAQGPASLNYYWVPLLTVIFGSYLIAHGFFSVYAMCVETIFICFLEDLERND   690
Pan_troglodytes                        FFTQRLPVIAQGPASLNYYWVPLLTVIFGSYLIAHGFFSVYAMCVETIFICFCEDLERND   697
Macaca_mulatta                         FFTQRLPVIAQGPASLNYYWVPLLTVILGSYLIAHGFFSVYAMCVETIFICFCEDLERND   690
Callithrix_jacchus                     FFTQRLPVIAQGPTSLNYYWVPLLTVIFGSYLIAHGFFSVYAMCVETIFICFCEDLERND   690
Heterocephalus_glaber                  LFTEKMPVILGGPTSLNYYWVPLLTVILGSYLVAHGCFSVYATCVETIFLCFCEDLERND   703
Canis_lupus_familiaris                 LFTQRLPTIIEGPTSLNYYWVPLLTVIIGSYLVAHGFFSVYAMCIDTIFICFLEDLERND   693
Bos_taurus                             LFTERLPVIIEGPTSLNYYWVPLLTVIIGSYIIAHGFFSVYAMCIETIFICFLEDLERND   699
Equus_caballus                         LFTERIPMIVEGPTSLNYYWVPLLTVIIGSYLIAHGFFSVYAMCIDTIFICFCEDLERND   709
Pavo_muticus                           FFTQRIPVFAQEAPALNYYWVPLLTVIIGSYLVAHGFFSVYAMCVDTLFLCFCEDLERND   686
Pavo_cristatus                         FFTQRIPVFAQEAPALNYYWVPLLTVIIGSYLVAHGFFSVYAMCVDTLFLCFCEDLERND   686
Gallus_gallus                          FFTQRIPVFAQEAPALNYYWVPLLTVIIGSYLVAHGFFSVYAMCVDTLFLCFCEDLERND   686
Chelonia_mydas                         FFTHRIPVFTQETPTLNYYWVPLLTVIIGSYLIAHGFFSVYAMCVDTLFLCFCEDLERND   686
Anolis_carolinensis                    FFTHRIPIFTHEAPSLNYYWVPLLTVIIGSYLVAHGFFSVYAMCVDTLFLCFCEDLERND   683
Rhinatrema_bivittatum                  FFTQRIPVIMQEAPTLNYYWIPLLTVIIGSYLIAHGFFSVYAMCVDTLFLCFCEDLERND   687
Xenopus_tropicalis                     FFTRKIPVLTDEAPALNYYWVPLLTVLIGSYLIAHGFFSVYAMCVDTLFLCFCEDLERNN   696
                                       .......670.......680.......690.......700.......710.......720
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                          **. :**:::  *  :: :     ::
Mus_musculus              GSPSRPYFVTPALMNILLEQGKIKKQ---   710
Rattus_norvegicus         GSPSRPYFVTPTLMNVLVERDKIKKQ---   713
Homo_sapiens              GSTARPYYVSQPLLKIFQEENPQTRKQ--   717
Pan_troglodytes           GSTEKPYFVTPNLHGILIKKQLVPQKQKE   726
Macaca_mulatta            GSTEKPYFITPNLHGILIKKQLVPQKQKE   719
Callithrix_jacchus        GSTEKPYFITPNLHGILIKKQLVPQKQKE   719
Heterocephalus_glaber     GSAEKPYFITPSLHEILVKKQSVPQKQKE   732
Canis_lupus_familiaris    GSTERPYYMSQSLLKILKEPTVRTKKH--   720
Bos_taurus                GSAEKPYYMSQSLMKIMNKRNAETKKQ--   726
Equus_caballus            GSAEKPYFIAPTLHGILNKKQLVPQKQKE   738
Pavo_muticus              GSTAKPYFMSASLHRILGKKELSPKKAIG   715
Pavo_cristatus            GSTAKPYFMSASLHRILGKKELSPKKAIG   715
Gallus_gallus             GSTAKPYFMSASLHRILGKKELSPKKAIG   715
Chelonia_mydas            GSTAKPYYMSASLHRILGKKELSPKKAMG   715
Anolis_carolinensis       GSTAKPYYMSASLHRILGKKELSPKKLMG   712
Rhinatrema_bivittatum     GSAAKPYFMSANLHRILGKKELSPRKG--   714
Xenopus_tropicalis        GSSSKPYYMSPNLHRILGKKEILSKKAKR   725
                          .......730.......740.........
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