

CLUSTAL X (1.83) MULTIPLE SEQUENCE ALIGNMENT

File: C:OutputMSA_sequences.ps

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g1|134104092|pdb|2CFS|A
g1|3644873|gb|AAI65202.1
808454773|ref|NP_00131202.1
1|133986577|gb|AAI65563.1
5541051|ep|08VDS2|PLP, RAT
47682239|gb|AAH63982.1
26339864|ref|XP_001376550.
14686325|ref|XP_001118139.
47682239|gb|AAH63982.1
73969720|ref|XP_538386.2
49591759|ref|XP_001516666.
68055791|ref|XP_00160225.1
47682239|gb|AAH63982.1
40254507|ref|NP_080230.2
092127253|ref|XP_001084229.
1894743|ref|NP_001225809.1
57123469|ref|XP_001660159.
70087776|ref|XP_001848163.
5428205|ref|XP_001660159.
91080661|ref|XP_974660.1
25979845|ref|XP_001353955.
56550923|ref|XP_001603048.
48141571|ref|XP_393558.1
15764708|ref|XP_001153132.
1|133986577|gb|AAI65563.1
1|133986577|gb|AAK96026.1
45349451|ref|XP_001413146.
54931082|ref|XP_001703502.
g1|888562|dbj|BAAT97552.1
157330632|emb|CA048346.1
1|133986577|gb|AAI65563.1
68000499|ref|XP_001752953.
59464681|ref|XP_001690570.
59476881|ref|XP_001656217.
26132056|ref|XP_001382554.
50419267|ref|XP_458157.1
49247275|ref|XP_001528050.
50554239|ref|XP_504528.1
451385046|ref|NP_982763.1
1|133986577|gb|AAI65563.1
71586686|ref|XP_001908284.
16192161|ref|XP_001221893.
54290287|ref|XP_001545741.
1917732|ref|XP_001240453.
54279300|ref|XP_001540463.
69767790|ref|XP_001818366.
19113047|ref|NP_596255.1
2121212|ref|XP_001221893.
10981582|ref|NP_001474520.
11021791|ref|XP_761126.1
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64662311|ref|XP_001732277.
59476881|ref|XP_001656217.
70107989|ref|XP_001885204.
58263062|ref|XP_568941.1
54279300|ref|XP_001540463.
34445399|ref|NP_982763.1
52968106|ref|YP_001363890.
68701360|ref|XP_02733637.1
1|133986577|gb|AAI65563.1
14591692|ref|NP_143780.1
18978604|ref|NP_578161.1
14521805|ref|NP_027281.
59476881|ref|XP_001656217.
183583417|dbj|BA029886.1
69178554|ref|ZP_02839909.1
18047808|ref|ZP_01514436.1
51891924|ref|YP_074615.1
15789896|ref|NP_279720.1
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57763784|ref|XP_001674235.
17562458|ref|NP_504509.1
1|133986577|gb|AAI65563.1
68462888|ref|XP_714670.1
70065169|ref|XP_001867828.

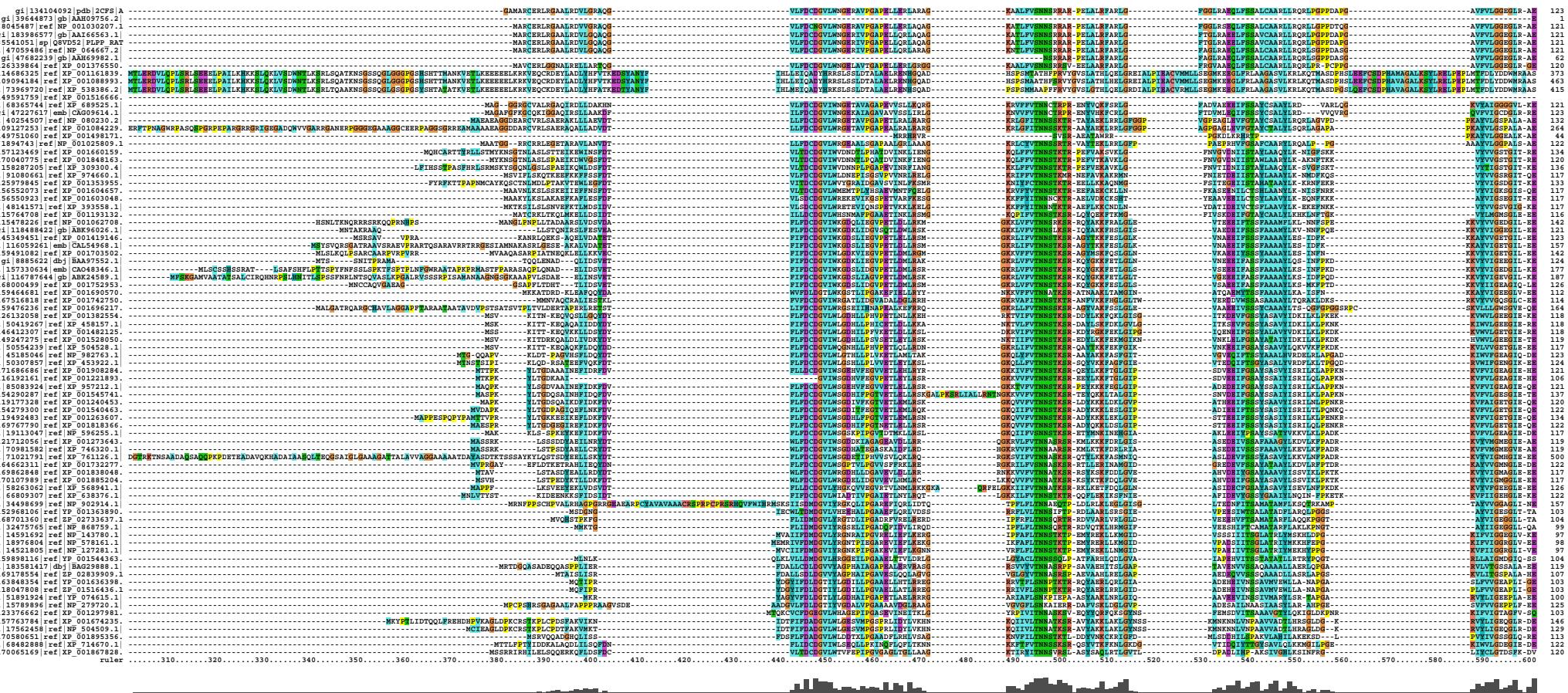
ruler 1.....10.....20.....30.....40.....50.....60.....70.....80.....90.....100.....110.....120.....130.....140.....150.....160.....170.....180.....190.....200.....210.....220.....230.....240.....250.....260.....270.....280.....290.....300

116 206 158 59 300

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g1_1310160925 ref XP_001205573_A ---QHDLVPHVVSIAIBLQEGED-
 g1_359447973 ref XP_0010302071_A ---QHDLVPHVVSIAIBLQEGED-
 8045487 ref NP_001030207.1 ---QHDLVPHVVSIAIBLQEGED-
 i_183986577 gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 55410150 ref NP_0028567_PAT ---QHDLVPHVVSIAIBLQEGELGGLSPFQFDVGGYR-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 g1_47682239_gb AA165982.1 ---QHDLVPHVVSIAIBLQEGED-
 23368948 ref NP_00137650 -XPELIVPHVVSIAVBLAGLEA-
 14036325 ref NP_001281683 -XPELIVPHVVSIAIBLQEGED-
 10949486 ref NP_001281683 -XPELIVPHVVSIAIBLQEGED-
 73997692 ref XP_583862.1 ---QHDLVPHVVSIAIBLQEGED-
 495931759 ref XP_001516666 -XPELIVPHVVSIAIBLQEGED-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 27273673_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 024554507 ref NP_008230.2 -CMFKKKVVBFVVSIAIBLLFAIQS-
 031272533 ref NP_001084229 -CVSKKKKVBPFVVSIAIBLLFAIQS-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 18947431 ref NP_001205809.1 -CEARQIVYDIFVVSIAIBLQFAED-
 57123469 ref XP_001660159 -DAEIKQCPVTVSKIGDLLFII-
 70047075 ref NP_001848163 -DEETRIVLVEVYAKIIGDLLFII-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 91080661 ref XP_974660.1 -KEEDEKMBVTFYKLGDLIFED-
 25979845 ref XP_001353955 -DLEDKKLIEVYKLGDLIFAI-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 055650932 ref NP_001603048 -PHE-
 48114571 ref XP_393558.1 -INTKNLIIIIDVANEKGDLIMKIS-
 17674078 ref NP_001139312 -KEKEERLVEVLYIHSIGLKLDD-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 118484822_gb ABXK62626.1 -SVCFVGSVSHLRLD-
 45349451 ref XP_001419146 -TIAATIVYBKLAILLVCVKAA-
 116055261 ref XP_001419146 -TIAATIVYBKLAILLVCVKAA-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 g1_8885621_dbl CA04946.1 -TIAATIVYBKLAILLVCVKAA-
 157330634 ref NP_001419146 -TIAATIVYBKLAILLVCVKAA-
 1117678644 ref ABK24589.1 -SKQDPYTKSKISPLSLKAATV-
 594646811 ref XP_001690570 -KWHILKMDSDGDPITKINPISNCAIM-
 67516818 ref XP_001742750 -GSDDPTTYAISLKLADLAEM-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 26120308 ref NP_001282554 -DVATVYAKLKGDLIPEN-
 050412967 ref XP_458157.1 -SAATIVAKLKGDLVLELIK-
 46412307 ref NP_001482125 -NEATIVYAKLKGDLVGPNN-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 050542339 ref XP_504528.1 -VAFEPYAKKLGDLVLELLK-
 45185046 ref NP_982763.1 -HQPAQYAKKLGSLWLFSEIV-
 05070857 ref XP_0015322.1 -NESEKTYAKKLGSLWLFSEIV-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 16192161 ref XP_001221893 -VAVIAFPAKLSLDRARATA-
 805839324 ref XP_957212.1 -VAVESPTVYKLSLDRARAAQ-
 54028827 ref XP_00140453 -VAVESPTVYKLSLDRARAAQ-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 02479300 ref XP_001504063 -PIRFTAVGSIKLLLEAA-
 19492483 ref XP_001263607 -PIRFSVYKLSLDRARAAQ-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 191130147 ref NP_596255.1 -PIRFTAVGSIKLLLEAA-
 27120505 ref NP_001273643 -GIMNSVIIQCSALSVVERHEAASSEGSDQARALEA-
 709815882 ref XP_647320.1 -GIMNTTAAISIISNTVAASSEGGIAD-
 646623311 ref XP_001732277 -AVAVITVNGCICLDLTAS-
 69682648 ref XP_001383048 -PIVIVDFVJBAQGDFFVYEEKA-
 54028827 ref XP_00140453 -QAVAVIPLVQGDPFRAA-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 66809307 ref XP_638376.1 -KININNTYNTIAIBLSSHHN-
 34488699 ref NP_9029314.1 -QFQEVFVEVSABIDEQAL-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 687013040 ref SP_02733637.1 -PDEQNLMPKVKYAPBZPVPA-
 32475765 ref NP_868759.1 -AGBIVVSVIAIBLCWSSEFVSSFLVNGREDDVTVNFAAANAA-
 145195192 ref NP_143780.1 -EXKEDLIVVSVYLLIINIKTL-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 14521805 ref NP_127281.1 -NCQGIVLVDODJSUHVLYIIST-
 589981152 ref NP_001544363 -QPAIVLVALDIALLILARAJR-
 183581417 dbl BAQ29888.1 -AERFLVIVLTSIOTLHJLTYFIVIVSBDWDWSATQGARADAGDVYVTFVGAPEHIDBOWAAJANNAFAPEHIDBOWAAJANNA-
 638438354 ref NP_1001636398 -PQFCTVYVLRIDELLBSGV-
 1047808 ref NP_01516436.1 -SREFTVYVLRIDELLBSGV-
 183986577_gb AA165653.1 ---QHDLVPHVVSIAIBLQEGED-
 157589894 ref NP_279720.1 -PQFCTVYVLRIDELLBSGV-
 23376662 ref NP_001297981 -EEKEFVCFEDAAICLAEKAN-
 577637848 ref NP_001674235 -NERIDDMVPYVAAICLALVVERK-
 705806511 ref XP_001835536 -XEVVYVYVTSVLSKLVFDLICX-
 68482888 ref XP_714670.1 -ETIQOSLNVFRVTSVLSKLVFDLICX-
 70065169 ref NP_001867828 -CVVYVYVTSVLSKLVFDLICX-