```
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
gi|30409986|ref|NP_848479.1|      ----------------------------MGTPAGAGTRPTGAGTVEG--VGIPPGLQTDYETLLSRFQEMDSVRFEDFTELWRSMKFATIFCGKMRNLKKNMFTKEALALAWRYFLPPHTFQIRVGALYLLYGLYNTQLCQPKQKIRV   118
gi|62650832|ref|XP_234299.3|      MRHGARERDVSGRCYRSLFLVAGMAQQGRSMEAPAGSSTRPMGAGTLEG--VGIPPGLQTDCETLLSRFQEMDSVRFEDFAELWRSMKFATIFCGKMRNLKKNMFTREALALAWCYFLPPYTFQIRVGALYLLYGLYNTQLCQPKQKIRV   148
gi|73964186|ref|XP_854096.1|      --------------------------------------------------MGASPGLQTDCEALLSRFQETDSVRFEDFTELWRSMKFGTIFCGRMRNLEKNMFTKEALALAWQYFLPPYTFQIRVGALYLLYGLYNTQLCQPKQKIRV    99
gi|155372207|ref|NP_001094714.1|  --------------------------------------------------MGTPSGLKDDCEALLSRFQEMDSVRFEDFAELWRSMKFGTIFCGRMRNLEKNTFTKEALTLAWRYFLPPYTFQIRVGALYLLYGLYNMQLCQPKQKIRV    99
gi|4507101|ref|NP_003073.1|       --------------------------------------------------MGTPPGLQTDCEALLSRFQETDSVRFEDFTELWRNMKFGTIFCGRMRNLEKNMFTKEALALAWRYFLPPYTFQIRVGALYLLYGLYNTQLCQPKQKIRV    99
gi|118092278|ref|XP_421416.2|     -MRGVPRLPEDCEALVVAFLEAHTVRFKRFADLATGSWVRVVTWAELSAGTMSGVPGLQEDCEALLGAFQEADTVRFERFAELWRERRFHTIFHGRMRALERNKITKKTLELAQQYFLPPYAFQIRVGALYLLYGLYNTQLCQPKIQIRI   149
gi|41053778|ref|NP_956548.1|      --------------------------------------------------MEHFREVVKTDIETLLGRLQAAESVRYEQFLEIWKDMDFSTVFFGKQEPREKRIFARLVLSVACQYFFPPFTFQIRVGALYLLYGLYNTQLATPREKIRI   100
                                  1.......10........20........30........40........50........60........70........80........90........100.......110.......120.......130.......140.......150
```

```
                                  ***** :   *::* :.:**:*.:::**.*   :********:**  * ***  :. :  ::* ** .*  .*:..*:***: *:* **: :*  :  :   *:  :.*::::: .:..  :  .. *::.*      :
gi|30409986|ref|NP_848479.1|      ALKDWDEVIRFQQDLMNAQHFDAAFVFRKLRLDRAFHFTAMPKLLSCRMKKK-VQQTEVTQKFKDPNDRVMKLITSDVLEEMLNVHDHYQNMKHAISADKSMPDRALSLVKEDFFENIKNIVLEHQEWHKERKNPSLKPKLKDGEEN--G   265
gi|62650832|ref|XP_234299.3|      ALKDWDEVIKFQQDLISAQHFDAAFVFRKLRLDRAFHFTAMPKLLSCRMKKK-AQQAEVTQKFKDPNDRVMKLITSDVLEEMLNVHDHYQNMKHAISADKSTPDRALSLVKEDFFDNIKNIVLEHQDWHKERKNPSLKPKLKDGEED--G   295
gi|73964186|ref|XP_854096.1|      ALKDWDEVLKFQQDLINAQHFDAAYIFRKLRLDKAFHFTAMPKLLSYRMKKK-IQRAEVTEEFKDPNDRVMKLITSDVLEEMLNVHDHYQNMKHIISGDKSNPDKALSLIKDDFFDNIKNIVLEHQQWHKDRKNPPLKSKVKDGEEK--R   246
gi|155372207|ref|NP_001094714.1|  ALKDWDEILKFQQDLINAQHFDAAYIFRKLRLDRAFHFTAMPKLLSYRMKKK-MQRAEITEEFKDPNDRVLKLITSDVLEEMMNVHDHYQRMKHVISADKSNPEKSLDLIKDDFFDNIKNIVLEHQQWHKDRKKPPLKLKVKGGEEK--S   246
gi|4507101|ref|NP_003073.1|       ALKDWDEVLKFQQDLVNAQHFDAAYIFRKLRLDRAFHFTAMPKLLSYRMKKK-IHRAEVTEEFKDPSDRVMKLITSDVLEEMLNVHDHYQNMKHVISVDKSKPDKALSLIKDDFFDNIKNIVLEHQQWHKDRKNPSLKSKTNDGEEK--M   246
gi|118092278|ref|XP_421416.2|     ALKDWPEVQSFQQDLIDSQHYDAAYIFRTLRRARAFHFTAMPKLLNYRTKKK-IQENECKEEFKDPSNRVSSLITNDVLEELMNIHEHYQKMKCAISADKSQPDKALSLIKDEFVVSLKDIALEHQEWQQKRLKLLLKAKETDEMPNRVE   298
gi|41053778|ref|NP_956548.1|      ALKDWKDAMQFERDAMNSQHYDVTYIFRKLLSEKAFHFTAMPNLLCSREKKKDGKRKDVCEEFVDPPSRPQQLVNTDLLEEITNIHTHYEGLKKAVFTE---PDPNMDLIQQNLVPKLSSSIITFSTWQKHR------AQFEEQDPG---   238
                                  .......160.......170.......180.......190.......200.......210.......220.......230.......240.......250.......260.......270.......280.......290.......300
```

```
                                  *  *  . *  ..**  ** ** *::. *  .********  :         *         :..                 . : .      *   .   :. :.*:  .      :
gi|30409986|ref|NP_848479.1|      EGSSEEPERCERAVSLAKIKAKAFSAVVPVSKSRRHRQSKLDSSDSDSGSGQVQGRAAKRKRTREPAGPAGRK-RSSRSKGNAPNERKEEKSLHLSMPIITEEEEEDMGGVRKAEFTAPKRKRKC------   389
gi|62650832|ref|XP_234299.3|      EGPSEEPERCERAVSLAKIKAKAFSAVAQVSKSRRHRQSKLDSSDSDSGSGQVQGKATKRKRTREPAEPAGRKQRPSRSKGDVPNERKEEKSLRLSMPVITEEEEESSDGLSKAEFTAPKRKRKH------   420
gi|73964186|ref|XP_854096.1|      EGNSQESERCERAESLARIKSKAFSVVVQASKSRRHRQVKLDSSDSDSASGQGQIKATRKKRNKETLKSEGRK-MPSRNRDDMQNVHKEDKSLRLSMPVITEEEEDNES-FSEPEFTAPKRKRKYRTKNLV   375
gi|155372207|ref|NP_001094714.1|  ERNSQQSERCERAESLAKIKSKAFSVVAQASKSRRHRQVKVDVSDSE--SGQVQTKTTRKRKNKETLKPAGKK-VSSRDRDDMQNIHMEDKSLNLSMPVVTEEDEENES-FSETEFTAPKRRRKQRTKS--   371
gi|4507101|ref|NP_003073.1|       EGNSQETERCERAESLAKIKSKAFSVVIQASKSRRHRQVKLDSSDSDSASGQGQVKATRKKEKKERLKPAGRK-MSLRNKGNVQNIHKEDKPLSLSMPVITEE-EENES-LSGTEFTASKKRRKH------   368
gi|118092278|ref|XP_421416.2|     EETSLRSEGSERADALARIKQKSYSAVVEASKSRRHRQVILESSESGSDYGKS---PRRSKKSSRRPQPAEKR-GSLEIRGQIQ-AEKETVTCHIGMPVITEEDSSDTE-----EVPLSKRRRRR------   413
gi|41053778|ref|NP_956548.1|      EGPSNQ-ESSSRAQLLASIKSKSYGQVVEASKSRRHRQTELIP-----AAGAELEHNVSSKKKSSSLK------ARTHLRFKAQGNDSEETTRMWCLSSVKEKKASRKL-VKRFNWKPEGSSDPT------   350
                                  .......310.......320.......330.......340.......350.......360.......370.......380.......390.......400.......410.......420.......430.
```