```
logo
NTDB id 371040 FK538 RS04430 WP 168370832.1  MFKIMGAGWILGIACMGKTLWPMLDFPLWLSGLLLIILLLQQ.IAALHWSHLGIQLINTYMAFVITFLLGLNFAQSQLEE   79
NTDB id 1015 ACIAD RS12005 WP 004928865.1    MFKIILLGWIAGIAMMGRTLECIEPFTCITGILTFLIWAIYFYKKRKHQIGSGLRALVILISASFLFGIGAQYADSALEE   80
NTDB id 1070 ABD1 RS13145 WP 000472713.1     MFKIILLGWIGGIALMGIDFPLIMQYEKVGEALLLLAFIFYLYKRPMFVDRPFLKAVFCLLCTTSLFMVGYHYAEKALIE   80
NTDB id 1083 HON27 RS04190 WP 168726476.1    MFKIILLGWIGGIALMGIDFPLIMQYEKVGEALLLLAFIFYLYKRPMFVDRPFLKAVFCLLCTTSLFMVGYHYAEKALIE   80
consensus                                    !!!!***!!!*!!!*!!*  ************!*** ***************  *************!**!***!* *! !

logo
NTDB id 371040 FK538 RS04430 WP 168370832.1  RLAFRELTRQPAEVVIYVQQINQLGSSQIRQPVQVLNRHNQPVQWLALL........PAEQELQLGRYYRLQGQTLPTHS  151
NTDB id 1015 ACIAD RS12005 WP 004928865.1    RLYYKIMHSDTHEVIIYVHQMGESSDKGIKQVAEVLNIHPDVVNWVFYIDQSLLGA.EKSSSLELGQYYRITAKTKPIHS  159
NTDB id 1070 ABD1 RS13145 WP 000472713.1     RLEQRETDTRNLDIIVYINRLSEEKDNKVQQTAQVLNLSKEPVNWLLYLKSNNQNLLKNNQNLELGHYYRISGKTRPAHS  160
NTDB id 1083 HON27 RS04190 WP 168726476.1    RLEQRETDTRNLDIIVYINRLSEEKDNKVQQTAQVLNLSKEPVNWLLYLKSNNQNLLKNNQNLELGHYYRISGKTRPAHS  160
consensus                                    !!***************!** **********!***!!!*****!*!*****************!*!!*!!!****!*!*!!

logo
NTDB id 371040 FK538 RS04430 WP 168370832.1  FAVPGAFDVEQWYLQQNIMSGFQVHSMTELTESELYRLGFGAHLRQHQQLWPQFKLWIETQRLQIRDFIQQQALQHPGLI  231
NTDB id 1015 ACIAD RS12005 WP 004928865.1    YALEGAFDVEKWFVQQNWQATAQVYRIQTLSKQEVMSAGFYLHVKQQQTWRAQFLQSVEKLRLKFRNYFIDSSLSHHALL  239
NTDB id 1070 ABD1 RS13145 WP 000472713.1     YATPGAFDQEKWFIQRNIMSGFNVRYIEPLSLDEIYRLGYQQHLKEQQSFSNSFRLNIEKLRLTFRQILNSSSLQQKGLI  240
NTDB id 1083 HON27 RS04190 WP 168726476.1    YATPGSFDQEKWFIQRNIMSGFNVRYIEPLSLDEIYRLGYQQHLKEQQSFSSSFRLNIEKLRLTFRQILNSSSLQQKGLI  240
consensus                                    *!**!*!! !*!**! !******!*****!***!****!***!** *!***  !****!**!!**!*******!****!*

logo
NTDB id 371040 FK538 RS04430 WP 168370832.1  LALLTGDKSLLDEATEQQFQRFGMSHLLAISGPHVLIFAAMLCFVLQRLVSRYWSELYARLPRSYLLLLPFMGCVFVYCA  311
NTDB id 1015 ACIAD RS12005 WP 004928865.1    LALLTGDRSLLNPELEQQFQRFGISHLLAISGPHVLIFAAMVSWIFTRLIHRFKPEIYLSIPRQKLVLLPFLMCVILYCA  319
NTDB id 1070 ABD1 RS13145 WP 000472713.1     LALLTGDESLLSDETQLQFKQLGISHLLAISGPHVLIFAIMLSWAYHQFISRYYPQIYLWKPKQVLIAVPCCLGVLIYTA  320
NTDB id 1083 HON27 RS04190 WP 168726476.1    LALLTGDESLLSDETQLQFKQLGISHLLAISGPHVFIFAIMLSWACHQFISRYYPKIYLWKPKQILMAVPCCLGVLIYTA  320
consensus                                    !!!!!!!*!!!****  !!   !*!!!!!!!!!!!!*!!! !******  **!*****!***!**!* *!****!**!*!

logo
NTDB id 371040 FK538 RS04430 WP 168370832.1  YVGFEIPALRTLLICLVAGACLLLKQPIQPLSLLIGSASLLLLLDPLSVLSAAFWLSYGACFVLLRIYQTLRQQPVHPQQ  391
NTDB id 1015 ACIAD RS12005 WP 004928865.1    FVGFEIPALRTLFTVMLGSILLLIRHHLSAFSLLVLSASLLLWMDPFSILSAAFWLSYGACFILIRIYQDMTQAQQFHQT  399
NTDB id 1070 ABD1 RS13145 WP 000472713.1     FVGFEIPALRTFLSVLIFIGFLLLKQPIKPFTLLVYSASLLLLMDPFSVLSAGFWLSYGACFILLRIYQTIAQLPEQHFL  400
NTDB id 1083 HON27 RS04190 WP 168726476.1    FVGFEIPALRTLLSTLIFIGFLLLKQPIKPFTLLVYSASLLLLMDPFSVLSAGFWLSYGACFILIRIYQTIAQLPEQHFL  400
consensus                                    *!!!!!!!!!!*********!!********!!**!!!!!!**!!*!*!!!*!!!!!!!!!!*!*!!!!***!***** *

logo
NTDB id 371040 FK538 RS04430 WP 168370832.1  TLMQKLWQGFRLLFESQWKIFIALFPLMIIFFKQIAWIAPLSNLLAIPWIGLVIVPLDILAGLSFYLAEPLSQLLFQLND  471
NTDB id 1015 ACIAD RS12005 WP 004928865.1    RFIRGM.QILKALVRSQWKIFVALMPLTLIIFKQISWIAPLSNLIAIPILGGIIVPLDIMAGCLWLFIPSLGNLLFYLNN  478
NTDB id 1070 ABD1 RS13145 WP 000472713.1     SLSSKMIFMSKVLIESQGKIFIALSPLTLLFFQQISWVAPLTNIIAVPIVGSVIVPLNIMAACAWFVIKPFGNMLFHFND  480
NTDB id 1083 HON27 RS04190 WP 168726476.1    SLSSKMIFMSKVLIESQGKIFIALSPLTLLFFQRISWVAPLTNIIAVPIVGSVIVPLNIIAACAWFVVKPFGNMLFHFND  480
consensus                                    ******* ****!**!! !!!*!!*!!****! *!*!*!!!*!**!*!**!**!!!! !*!********* ***!!* !*
```

```
logo

NTDB id 371040 FK538 RS04430 WP 168370832.1   LALSLLLGCLQLLDLLFAPQLIPVALSPPMLLSLVLGLIILFLPAGLVPKAWSALCLLPLLFQDQFSRQVELTVLDVGQG   551
NTDB id 1015 ACIAD RS12005 WP 004928865.1     SLLELFIGILKGLDHLFNPQLQYYAFTPLLLICLTLAIVILFLPKGVVPKFWSVLCFVPLLIPSKMIRPTQISILDVGQG   558
NTDB id 1070 ABD1 RS13145 WP 000472713.1      MLLSILLSCLGLLE.KLSLTLQGISLTPLSLLAISCAIIILFLPKGILPKTWGILCCLPLVIMNKTSQQIQLNILDVGQG   559
NTDB id 1083 HON27 RS04190 WP 168726476.1     MLLSILLSCLGLLE.KLSLPLQGISLTPLSLLAISCAIIILFLPKGILPKTWGILCCLPLVMMNKTSQQIQLNILDVGQG   559
consensus                                     **!**** *!**!*   ***!*** **!**!********!!!!!*!**!!*! *!!**!!******* ******!!!!!!

logo

NTDB id 371040 FK538 RS04430 WP 168370832.1   QAIFLRYHEHSMMIDMGGHYDEQKWSIGRQIIQPFLSVKGVQQLDYLWLTHLDQDHSGAYQTLKPQLQVQQVYANAQLEV   631
NTDB id 1015 ACIAD RS12005 WP 004928865.1     QSIFIQDQTQRILLDTGGYYDESKFSIGKQVVVPFLKSQGVHQLDRVILTHLDQDHSGGLPAVLQLIPTRMIQANEE.IK   637
NTDB id 1070 ABD1 RS13145 WP 000472713.1      QAIFLQHPEQNWLIDTGGSYDEKIFSIGQNVVVPFLRQQGVRQLDHVVLSHLDQDHSGAFPLIQQEIPVKQLISNEQLPN   639
NTDB id 1083 HON27 RS04190 WP 168726476.1     QAIFLQHPQQNWLIDTGGSYDEKIFSIGQNVVVPFLRQQGVRQLDHVVLSHLDQDHSGAFPIIQQEIPVKQLISNEQLPN   639
consensus                                     !*!!**********!*!!*!!!* *!!!*****!!!***!!*!!!***!*!!!!!!!!***************** !*****

logo

NTDB id 371040 FK538 RS04430 WP 168370832.1   HPDSRFDYCRQGQQWQWQPGIQIQVLSPKPEQLNPVEQQKNESSCVLLVEFAQAQPYSRFLLMGDAGWPTEYQLLQDYPD   711
NTDB id 1015 ACIAD RS12005 WP 004928865.1     DLSIPFSLCHSGQTWET.SELKIQILSPKLENLQSTVFNRNEASCVMYLQLKQASDLKYFLMMGDAGWETEYQLLQQYPD   716
NTDB id 1070 ABD1 RS13145 WP 000472713.1      DLKQPFQYCHQGQQWHY.PELDIQILWPKEKDLAFVTSNQNQYSCVVYLQFKKVGGYQNFLIMGDAGWEAEYELLKDYPN   718
NTDB id 1083 HON27 RS04190 WP 168726476.1     DLKQPFQYCHQGQQWHY.SELDIQILWPKEKDLAFVASNQNQYSCVVYLQFKKVGGYQNFLIMGDAGWEAEYELLKDYPN   718
consensus                                     *****!**!**!!*!** ****!!*! !!* *!*** ***! *!!!****** *****!!*!!!!!!* !! !! *!!

logo

NTDB id 371040 FK538 RS04430 WP 168370832.1   LKVDVLVLGHHGSRHSSSYQFLKQLEPKLAIASAGLNNRYGHPSTQVQARLNALKIPLWQTAQQGSIQFYPTEN..EVLP   789
NTDB id 1015 ACIAD RS12005 WP 004928865.1     LKVDVLILGHHGSQHSSSYDFLKRYHPKIAIASAGFENGYGHPSAEVSNRLQDLNIPLLSTTDKGAIHFKFDSGNEQTEF   796
NTDB id 1070 ABD1 RS13145 WP 000472713.1      LKIDVLVLGHHGSKHSSAYDFLATLKPKLAIASAGFDNRYGHPSQQVIARLKALHIPLKSTVEQGTLSFVLENHKIVLHD   798
NTDB id 1083 HON27 RS04190 WP 168726476.1     LKIDVLVLGHHGSKHSSAYDFLATLKPKLAIASAGFDNRYGHPSQQVIARLKALHIPLKSTLEQGTLSFVLENHKLVLHD   798
consensus                                     !!*!!!*!!!!!!*!!! !*!! ***!!*!!!!!!**!*!!!!!**!**!!**!*!!!**!***!***!******!****

logo

NTDB id 371040 FK538 RS04430 WP 168370832.1   YRHTRVWLRRD.   800
NTDB id 1015 ACIAD RS12005 WP 004928865.1     YRQSYKWLQR..   806
NTDB id 1070 ABD1 RS13145 WP 000472713.1      RRLDRLWLSRGF   810
NTDB id 1083 HON27 RS04190 WP 168726476.1     RRLDRLWLSRGF   810
consensus                                      !****!!*!**
```

X non conserved

X similar

X ≥ 50% conserved