```
logo

NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  MWKTILLAWIAGISVMGKTFNLPVFLLPGLMIFSVGSGLLYWYQYSKLESHHPIPCLSRAVFILALGILTGTLGYRYADH   80
NTDB id 1015 ACIAD RS12005 WP 004928865.1      MFKIILLGWIAGIAMMGRTLECIEPFTCI....TGILTFLIWAIYFYKKRKHQIGSGLRALVILISASFLFGIGAQYADS   76
NTDB id 1083 HON27 RS04190 WP 168726476.1      MFKIILLGWIGGIALMGIDFPLIMQYEKV....GEALLLLAFIFYLYKRPMFVDRPFLKAVFCLLCTTSLFMVGYHYAEK   76
NTDB id 1070 ABD1 RS13145 WP 000472713.1       MFKIILLGWIGGIALMGIDFPLIMQYEKV....GEALLLLAFIFYLYKRPMFVDRPFLKAVFCLLCTTSLFMVGYHYAEK   76
consensus                                      !*!*!!!*!!*!!**!!* **********    ******!****!******** *****!***!*********!**!!**

logo

NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  ALEQRLDNRETETRNIEAIVYIRHIDERSEKQIRQKVEVLDQKKQPVQWWLTFKN....IPEQPIKFELGEYYRIYGEVI  156
NTDB id 1015 ACIAD RS12005 WP 004928865.1      ALEERLYYKIMHSDTHEVIIYVHQMGESSDKGIKQVAEVLNIHPDVVNWVFYIDQSLLGA.EKSSSLELGQYYRITAKTK  155
NTDB id 1083 HON27 RS04190 WP 168726476.1      ALIERLEQRETDTRNLDIIVYINRLSEEKDNKVQQTAQVLNLSKEPVNWLLYLKSNNQNLLKNNQNLELGHYYRISGKTR  156
NTDB id 1070 ABD1 RS13145 WP 000472713.1       ALIERLEQRETDTRNLDIIVYINRLSEEKDNKVQQTAQVLNLSKEPVNWLLYLKSNNQNLLKNNQNLELGHYYRISGKTR  156
consensus                                      !! *!!************!*!*****!* * ***!** !!******!*!************ *****!!!*!!!!*****

logo

NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  PAHGYAMPGVFDQEKWFIQQNIMASVKIWKIEKLDHEAVYRLGFNQYLNNQQGWINGLLLLMERQRYHFRTFIQNSTLKN  236
NTDB id 1015 ACIAD RS12005 WP 004928865.1      PIHSYALEGAFDVEKWFVQQNWQATAQVYRIQTLSKQEVMSAGFYLHVKQQQTWRAQFLQSVEKLRLKFRNYFIDSSLSH  235
NTDB id 1083 HON27 RS04190 WP 168726476.1      PAHSYATPGSFDQEKWFIQRNIMSGFNVRYIEPLSLDEIYRLGYQQHLKEQQSFSSSFRLNIEKLRLTFRQILNSSSLQQ  236
NTDB id 1070 ABD1 RS13145 WP 000472713.1       PAHSYATPGAFDQEKWFIQRNIMSGFNVRYIEPLSLDEIYRLGYQQHLKEQQSFSNSFRLNIEKLRLTFRQILNSSSLQQ  236
consensus                                      !*!*!!**!*!!*!!!!*! !** ******!**!********!*******!!****** ***!**!**!!*****!*!**

logo

NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  KGLILALLTGDKSLLSSETEEQFQRLGISHLLAISGPHVLIFAALVSWVLQTLIRLYGPKLYLSLPRPYLLVFPFCFCVL  316
NTDB id 1015 ACIAD RS12005 WP 004928865.1      HALLLALLTGDRSLLNPELEQQFQRFGISHLLAISGPHVLIFAAMVSWIFTRLIHRFKPEIYLSIPRQKLVLLPFLMCVI  315
NTDB id 1083 HON27 RS04190 WP 168726476.1      KGLILALLTGDESLLSDETQLQFKQLGISHLLAISGPHVFIFAIMLSWACHQFISRYYPKIYLWKPKQILMAVPCCLGVL  316
NTDB id 1070 ABD1 RS13145 WP 000472713.1       KGLILALLTGDESLLSDETQLQFKQLGISHLLAISGPHVLIFAIMLSWAYHQFISRYYPQIYLWKPKQVLIAVPCCLGVL  316
consensus                                      **!*!!!!!!!*!!!**!* *!!  *!!!!!!!!!!!!!*!!! **!!**** !****!**!! *!***!***!****!*

logo

NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  LYSAFVGFEIPALRTLLITLLGSSLLLLRQKIQALSLLLASASLLLWIDPFSVLSAAFWLSFGACFILLRIYESIDRQPA  396
NTDB id 1015 ACIAD RS12005 WP 004928865.1      LYCAFVGFEIPALRTLFTVMLGSILLLIRHHLSAFSLLVLSASLLLWMDPFSILSAAFWLSYGACFILIRIYQDMTQAQQ  395
NTDB id 1083 HON27 RS04190 WP 168726476.1      IYTAFVGFEIPALRTLLSTLIFIGFLLLKQPIKPFTLLVYSASLLLLMDPFSVLSAGFWLSYGACFILIRIYQTIAQLPE  396
NTDB id 1070 ABD1 RS13145 WP 000472713.1       IYTAFVGFEIPALRTFLSVLIFIGFLLLKQPIKPFTLLVYSASLLLLMDPFSVLSAGFWLSYGACFILLRIYQTIAQLPE  396
consensus                                      *!*!!!!!!!!!!!!!*** **   * !!********!!**!!!!!! *!!!!*!!!!*!!!!*!!!!!!*!!!********

logo

NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  QPAFNWKQRVLTAGKLLIESQGKIFIALFPLVLIFFKQVSWIAPLTNILVIPLLGAVVVPLDILAACLSYIISPLGLLLF  476
NTDB id 1015 ACIAD RS12005 WP 004928865.1      FHQTRFTRGM.QILKALVRSQWKIFVALMPLTLIIFKQISWIAPLSNLIAIPILGGIIVPLDIMAGCLWLFIPSLGNLLF  474
NTDB id 1083 HON27 RS04190 WP 168726476.1      QHFLSLSSKMIFMSKVLIESQGKIFIALSPLTLLFFQRISWVAPLTNIIAVPIVGSVIVPLNIIAACAWFVVKPFGNMLF  476
NTDB id 1070 ABD1 RS13145 WP 000472713.1       QHFLSLSSKMIFMSKVLIESQGKIFIALSPLTLLFFQQISWVAPLTNIIAVPIVGSVIVPLNIMAACAWFVIKPFGNMLF  476
consensus                                      **************!*!**!!*!!!*!!*!!*!**! **!!*!!!*!****!**!***!!! !*!*! ****** !**!!
```

```
logo
NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  HCSDLGLNLGLWILEILDHLFNPQLQGIAFTPLLIVSLSIGLIILYLPRSVIPKAWALLCFVPVFTSRAPDSDFKLTVLD   556
NTDB id 1015 ACIAD RS12005 WP 004928865.1      YLNNSLLELFIGILKGLDHLFNPQLQYYAFTPLLLICLTLAIVILFLPKGVVPKFWSVLCFVPLLIPSKMIRPTQISILD   554
NTDB id 1083 HON27 RS04190 WP 168726476.1      HFNDMLLSILLSCLGLLEKL.SLPLQGISLTPLSLLAISCAIIILFLPKGILPKTWGILCCLPLVMMNKTSQQIQLNILD   555
NTDB id 1070 ABD1 RS13145 WP 000472713.1       HFNDMLLSILLSCLGLLEKL.SLTLQGISLTPLSLLAISCAIIILFLPKGILPKTWGILCCLPLVIMNKTSQQIQLNILD   555
consensus                                      ******!******!**!**!* **!!**  !!! *********!!*!!****!!*!**!!**!***************!!

logo
NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  VGQGQAILLQSSQQKIMLDTGGYYDETKFSIGQQILAPFLFSQGIARLDRVLLTHLDQDHSGALLPLSQKIKIDEVIANT   636
NTDB id 1015 ACIAD RS12005 WP 004928865.1      VGQGQSIFIQDQTQRILLDTGGYYDESKFSIGKQVVVPFLKSQGVHQLDRVILTHLDQDHSGGLPAVLQLIPTRMIQANE   634
NTDB id 1083 HON27 RS04190 WP 168726476.1      VGQGQAIFLQHPQQNWLIDTGGSYDEKIFSIGQNVVVPFLRQQGVRQLDHVVLSHLDQDHSGAFPIIQQEIPVKQLISNE   635
NTDB id 1070 ABD1 RS13145 WP 000472713.1       VGQGQAIFLQHPEQNWLIDTGGSYDEKIFSIGQNVVVPFLRQQGVRQLDHVVLSHLDQDHSGAFPLIQQEIPVKQLISNE   635
consensus                                      !!!!!*!**!***!* **!!!! !!!* !!!!*****!!!* !!***!!*!*!*!!!!!!!!* ****!*!****** !*

logo
NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  QLPETWNIKQSSPCREGQSWSYQNFKVQVLSPGLNTYPSMVEANPNEYSCVLYVQLNQAQPYRNFLIMGDAGWPTEYELM   716
NTDB id 1015 ACIAD RS12005 WP 004928865.1      E.IKDLSIP.FSLCHSGQTWETSELKIQILSPKLENLQS.TVFNRNEASCVMYLQLKQASDLKYFLMMGDAGWETEYQLL   711
NTDB id 1083 HON27 RS04190 WP 168726476.1      QLPNDLKQP.FQYCHQGQQWHYSELDIQILWPKEKDLAF.VASNQNQYSCVVYLQFKKVGGYQNFLIMGDAGWEAEYELL   713
NTDB id 1070 ABD1 RS13145 WP 000472713.1       QLPNDLKQP.FQYCHQGQQWHYPELDIQILWPKEKDLAF.VTSNQNQYSCVVYLQFKKVGGYQNFLIMGDAGWEAEYELL   713
consensus                                      ******* * * *!**!!*!***** *!*! !* ****  * *!*! *!!!*!*! *  *****!!*!!!!!!* !!*!*

logo
NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  KKYPELQVDVLVLGHHGSKHSSAYSFLKYLHPKLAIASAGQNNRYGHPTKEVKVRLKALDIPLLLTAQTGNIEFYQEADE   796
NTDB id 1015 ACIAD RS12005 WP 004928865.1      QQYPDLKVDVLILGHHGSQHSSSYDFLKRYHPKIAIASAGFENGYGHPSAEVSNRLQDLNIPLLSTTDKGAIHFKFDSGN   791
NTDB id 1083 HON27 RS04190 WP 168726476.1      KDYPNLKIDVLVLGHHGSKHSSAYDFLATLKPKLAIASAGFDNRYGHPSQQVIARLKALHIPLKSTLEQGTLSFVLENHK   793
NTDB id 1070 ABD1 RS13145 WP 000472713.1       KDYPNLKIDVLVLGHHGSKHSSAYDFLATLKPKLAIASAGFDNRYGHPSQQVIARLKALHIPLKSTVEQGTLSFVLENHK   793
consensus                                      **!!*!**!!!*!!!!!!*!!!*!*!! ***!!*!!!!!!**!*!!!!** !**!!**!*!!! *!***!***!******

logo
NTDB id 1006981 ABLB95 RS09900 WP 005027085.1  QINYTLYREQWKWLKIK.   813
NTDB id 1015 ACIAD RS12005 WP 004928865.1      E.QTEFYRQSYKWLQR..   806
NTDB id 1083 HON27 RS04190 WP 168726476.1      L.VLHDRRLDRLWLSRGF   810
NTDB id 1070 ABD1 RS13145 WP 000472713.1       I.VLHDRRLDRLWLSRGF   810
consensus                                      * **** !*** !!****
```

X non conserved

X similar

X $\geq$ 50% conserved