```
logo
NTDB id 1169 A1552VC RS11075 WP 000648511.1   MKAT......QTLPLKNYRWKGINSNGKK.VSGQMLAISEIEVRDKLKDQHIQIKKLKKGSVSLLAR.LTHRVKSKDITI   72
NTDB id 1402 DSB67 RS12670 WP 010643257.1     .MKT......IAPQLKNYRWKGINSSGKK.TSGNVLAMTEIEVRERLDAQHIKIKKLKKGSISFITK.ISHRVKGKDITI   71
NTDB id 1113 AAA85695.1 219..1451( )          .MAKNGGFSLFAKKEKRFIFEGRHSASDKLVNGEVSAFTEEEARKKLAKRGIRPLQITRV.....KTSSKRKITQEDITV   74
NTDB id 1112 NGFG RS09215 WP 003689811.1      .MAKNGGFSLFAKKEKRFIFEGRHSASDKLVNGEVSAFTEEEARKKLAKRGIRPLQITRV.....KTSSKRKITQEDITV   74
NTDB id 183796 A9F00 RS07785 WP 010947252.1   .MDKN......SPPLLTFHYQGINKAGQK.MEGDIQARSLAIAKADLRKQGIVTNKVVKKRKPLFDR.KNKKITQADITV   71
NTDB id 1252 GC085 RS07730 WP 011213805.1     .MDKN......SPPLLTFHYQGINKAGQK.MEGDIQARSLAIAKADLRKQGIVTNKVVKKRKPLFDR.KNKKITQADITV   71
NTDB id 1198 PSJM300 03950 AFN76868.1         .MAQK......AIKNSVFTWEGLDRQGAK.IKGELSGVSPALVKAQLRKQGINPQKVRKKSISLFS..AGKKIKPMDIAL   70
NTDB id 1016 ACIAD RS01680 WP 004920476.1     MAAKK......TQVMPVFAYEGVDRKGIK.LKGELPARNMALAKVTLRKQGITIRTIREKRKNIFEGLLKKKVKPLDIAI   73
NTDB id 1059 ABD1 RS01610 WP 000279215.1      MAVKK......AQMMPTFAYEGVDRKGVK.IKGELPAKNMALAKVTLRKQGVTVRNIREKRKNILEGLFKKKVTTLDITI   73
consensus                                      ***        *  *  * **!* * * ! * !** * * ****  !*****   *****   *       ****  !!**

logo
NTDB id 1169 A1552VC RS11075 WP 000648511.1   LTRQLATMLTTGVPIVQALKLVGDNHRKAEMKSILAQITKSVEAGTPLSKAMRTASAHFDTLYVDLVETGEMSGNLPEVF   152
NTDB id 1402 DSB67 RS12670 WP 010643257.1     FTRQIATMLMTGVPIVQALKLVSENHKKAEMKSILMSVTRAVEAGTPMSKAMRTASTHFDPLYTDLIATGEQSGNLSQVF   151
NTDB id 1113 AAA85695.1 219..1451( )          FTRQLSTMINAGLPLMQAFEIVARGHGNPSMTEMLMEIRGQVEQGSSLSRAFSNHPKYFDRFYCNLVAAGETGGVLESLL   154
NTDB id 1112 NGFG RS09215 WP 003689811.1      FTRQLSTMIKAGLPLMQAFEIVARGHGNPSMTEMLMEIRGQVEQGSSLSRAFSNHPKYFDRFYCNLVAAGETGGVLESLL   154
NTDB id 183796 A9F00 RS07785 WP 010947252.1   FSRQLATMIESGIPLVQAFDIVAKGQSNKRLKDLIETIKHDIETGLTLAESLIKHPLYFNELFCNLVDAGEKSGSLDIML   151
NTDB id 1252 GC085 RS07730 WP 011213805.1     FSRQLATMIESGIPLVQAFDIVAKGQSNKRLKDLIETIKHDIETGLTLAESLIKHPLYFNELFCNLVDAGEKSGSLDIML   151
NTDB id 1198 PSJM300 03950 AFN76868.1         FTRQMATMMKAGVPLLQSFDIIGEGFDNPNMRKLVDDLKQEVAAGNSFASSLRKKPQYFDDLYCNLVDSGEQSGSLETLL   150
NTDB id 1016 ACIAD RS01680 WP 004920476.1     FTRQLATMMKAGVPLVQAFEIVAEGLENPAMRDVVLGLKNEVEGGNTFAGALRKYPQYFDNLFCSLIESGEQSGSLEIML   153
NTDB id 1059 ABD1 RS01610 WP 000279215.1      FTRQLATMMKAGVPLVQGFEIVAEGLENPAMREVVLGIKGEVEGGSTFASALRKYPQHFDNLFCSLVESGEQSGALETML   153
consensus                                     **!!**!!* *!*!**!********  ** ****** ** ****!**** **** * *!* ****!***!! *! !* **

logo
NTDB id 1169 A1552VC RS11075 WP 000648511.1   ERLATYREKSEQLRAKVIKALIYPSMVVLVALGVSYLMLTMVIPEFESMFKGFGAELPWFTQQVLKLSHWVQAYSLWAFI   232
NTDB id 1402 DSB67 RS12670 WP 010643257.1     ERLATYREKSEQLRAKVIKALIYPAMVVLVALGVSYLMLTRVIPEFEKMFTGFGADLPAFTQMVLNLSAWTQNWGPFIGL   231
NTDB id 1113 AAA85695.1 219..1451( )          DKLAIYKEKTQAIRKKVKTALTYPVSVIAVAIGLVFVMMIFVLPAFKEVYANMGAELPALTQTVMDMSDFFVSYGWMVLI   234
NTDB id 1112 NGFG RS09215 WP 003689811.1      DKLAIYKEKTQAIRKKVKTALTYPVSVIAVAIGLVFVMMIFVLPAFKEVYANMGAELPPLTQTVMDMSDFFVSYGWMVLI   234
NTDB id 183796 A9F00 RS07785 WP 010947252.1   DKVATYKEKIEIIKKKIKKALTYPIAVMVVALLVTAGLLIYVVPQFESLFKGFGADLPAMTRAVITMSEFMQAYWYIIFG   231
NTDB id 1252 GC085 RS07730 WP 011213805.1     DKVATYKEKIEIIKKKIKKALTYPIAVMVVALLVTAGLLIYVVPQFESLFKGFGADLPAMTRAVITMSEFMQAYWYIIFG   231
NTDB id 1198 PSJM300 03950 AFN76868.1         DRVATYKEKTEALKAKIKKAMNYPIAVVLVAVIVTAILLIKVVPQFQDVFANFGAELPAFTLMVIGLSEALQAWWYVVLA   230
NTDB id 1016 ACIAD RS01680 WP 004920476.1     DRVAVYKEKSEVLKQKIKKAMKYPATVIVVAIVVTIILMVKVVPVFKDLFTSFGADLPAFTQLVVNMSNWMQDYWFILIL   233
NTDB id 1059 ABD1 RS01610 WP 000279215.1      DRVAIYKEKSELLKQKIKKAMKYPATVIVVAIVVTIILMVKVVPVFQDLFASFGADLPAFTQMVVNMSKWMQEYWFIMII   233
consensus                                     ***!*!*!!** ** !***!* !!* !**!!**** **** !*! ! ***  *!!*!!**!* !* *!**** *******

logo
NTDB id 1169 A1552VC RS11075 WP 000648511.1   AIAAAIFGLKALRKNSFQIRLKTSRLGLKFPIIGNVLAKASIAKFSRTLATSFAAGIPILASLKTTAKTSGNVHFETAIN   312
NTDB id 1402 DSB67 RS12670 WP 010643257.1     SFVSLLISGKIMSQRSDSFRLLAARSSLRVPILGPVLSKAAIAKFSRTLATSFSAGIPILTALKTTSKTSGNMHYQLAIE   311
NTDB id 1113 AAA85695.1 219..1451( )          ALGFAIYRFLKLKARSIKIQRRMDAILLRMPIFGDIVRKGTIARWGRTTATLFAAGVPLVDVLDSTAGAAGNLIYEEATR   314
NTDB id 1112 NGFG RS09215 WP 003689811.1      ALGFAIYGFLKLKARSIKIQRRMDAILLRMPIFGDIVRKGTIARWGRTTATLFAAGVPLVDVLDSTAGAAGNLIYEEATR   314
NTDB id 183796 A9F00 RS07785 WP 010947252.1   ALGGIVYSFFYAKNHSLEFAQTIDRVMLKFPVIGPILEKAAIARFARTLSITFAAGLPLVEALKSVAGATGNIIYAKATD   311
NTDB id 1252 GC085 RS07730 WP 011213805.1     ALGGVVYSFFYAKNHSLEFAQTIDRVMLKLPVIGPILEKAAIARFARTLSITFAAGLPLVEALKSVAGATGNIIYAKATD   311
NTDB id 1198 PSJM300 03950 AFN76868.1         GFVGAAYAFKQAHTRSEKFRNWFDRLMLKVPVVGDILYKSSVARFARTLSTTFAAGVPLVDALDSVAGATGNVVFRSATN   310
NTDB id 1016 ACIAD RS01680 WP 004920476.1     VIGAAIAGFLEARKRSKRFRDQLDRLVLRLPIVGDLVYKAIIARYSRTLATTFAAGVPLIDALASTAGATNNTVYEQAVL   313
NTDB id 1059 ABD1 RS01610 WP 000279215.1      AIGAVIAAFLEAKKRSKKFRDGLDKLALKLPIFGDLVYKAIIARYSRTLATTFAAGVPLIDALESTAGATNNVIYEKAVM   313
consensus                                     *********  ** *! ***  *****!**!**!*** !* *!***!!****!*!!*!****! *******!**** !*
```

```
logo
```

```
NTDB id 1169 A1552VC RS11075 WP 000648511.1   EVYRDTAAGMPMYIAMRNTEAFPEMVLQMVMIGEESGQLDDMLNKVATIYEFEVDNTVDNLGKILEPLIIVFLGTVVGGL   392
NTDB id 1402 DSB67 RS12670 WP 010643257.1     EVYRDTAAGMPMYIAMRHCHVFPELVLQMVMIGEESGRLDDMLNKIAAIYEFEVDNTVDNLSKILEPLIIVFLGVVVGGL   391
NTDB id 1113 AAA85695.1 219..1451( )          EIRTRVIQGLSMTSGMRATELFPNMMLQMSSIGEESGSLDDMLNKAAEFYEDEVDNAVGWLSAMMEPIIILILGLVIGTL   394
NTDB id 1112 NGFG RS09215 WP 003689811.1      EIRTRVIQGLSMTSGMRATELFPNMMLQMSSIGEESGSLDDMLNKAAEFYEDEVDNAVGRLSAMMEPIIIVILGLVIGTL   394
NTDB id 183796 A9F00 RS07785 WP 010947252.1  KIREEVATGQQMFTAMENTHLFPNMVIQMVAIGEESGALEKMLSKVADFYEEEVNNAVDALSSLLEPIIMSILGILVGGL   391
NTDB id 1252 GC085 RS07730 WP 011213805.1    KIREEVATGQQMFIAMENTHLFPNMVIQMVAIGEESGALEKMLSKVADFYEEEVNNAVDALSSLLEPIIMSILGILVGGL   391
NTDB id 1198 PSJM300 03950 AFN76868.1        KIKSDVSSGMQLNFSMRTTGTFPSMAVQMTAIGEESGALDEMLSKVATFYEDEVDNMVDGLTALMEPMIMAVLGVLVGGL   390
NTDB id 1016 ACIAD RS01680 WP 004920476.1    KIREDVSTGQQLNFAMRVSNRFPTMAIQMVAIGEESGALDEMLDKVANYYESEVDHAVDGLTSMMEPLIMAILGILVGGL   393
NTDB id 1059 ABD1 RS01610 WP 000279215.1     KIREDVATGQQLQFAMRISNRFPSMAIQMVAIGEESGALDSMLDKVATYYENEVDNAVDGLTSMMEPLIMAILGVLVGGL   393
consensus                                    *** ****!***  *!* * *!! ***!!**!!!!!!*!**!! !*! *!!*!!***!**!* **!!*!* *!!***!*!
```

```
   <0
logo
```

```
NTDB id 1169 A1552VC RS11075 WP 000648511.1   VVAMYLPIFNLMSVLG.   408
NTDB id 1402 DSB67 RS12670 WP 010643257.1     VTAMYLPIFNLMSVLG.   407
NTDB id 1113 AAA85695.1 219..1451( )          LVAMYLPLFNLGNVVA*   410
NTDB id 1112 NGFG RS09215 WP 003689811.1      LVAMYLPLFNLGNVVA.   410
NTDB id 183796 A9F00 RS07785 WP 010947252.1   VVAMYLPIFKLGSAV..   406
NTDB id 1252 GC085 RS07730 WP 011213805.1     VVAMYLPIFKLGSAV..   406
NTDB id 1198 PSJM300 03950 AFN76868.1         IIAMYLPIFQMGSVV..   405
NTDB id 1016 ACIAD RS01680 WP 004920476.1     VIAMYLPIFQMGSVV..   408
NTDB id 1059 ABD1 RS01610 WP 000279215.1      VIAMYLPIFQMGSVV..   408
consensus                                     **!!!!!*!******
```

X non conserved
X similar
X ≥ 50% conserved