```
logo
NTDB id 361672 FCN78 RS02185 WP 069363365.1  .........MAKSTLFIFHWRQAAARGEK..KGQVFAYTERDARQELANQSIVPSRLIRRRLSSFQQR.RHKAKAADITQ   68
NTDB id 1169 A1552VC RS11075 WP 000648511.1  ......MKATQTLPLKNYRWKGINSNGKK.VSGQMLAISEIEVRDKLKDQHIQIKKLKKGSVSLLARL.THRVKSKDITI   72
NTDB id 1402 DSB67 RS12670 WP 010643257.1    .......MKTIAPQLKNYRWKGINSSGKK.TSGNVLAMTEIEVRERLDAQHIKIKKLKKGSISFITKI.SHRVKGKDITI   71
NTDB id 1112 NGFG RS09215 WP 003689811.1     .MAKNGGFSLFAKKEKRFIFEGRHSASDKLVNGEVSAFTEEEARKKLAKRGIRPLQI.....TRVKTSSKRKITQEDITV   74
NTDB id 1113 AAA85695.1 219..1451( )         .MAKNGGFSLFAKKEKRFIFEGRHSASDKLVNGEVSAFTEEEARKKLAKRGIRPLQI.....TRVKTSSKRKITQEDITV   74
NTDB id 1252 GC085 RS07730 WP 011213805.1    .MDKNS......PPLLTFHYQGINKAGQK.MEGDIQARSLAIAKADLRKQGIVTNKVVKKRKPLFDRK.NKKITQADITV   71
NTDB id 1016 ACIAD RS01680 WP 004920476.1    MAAKKT......QVMPVFAYEGVDRKGIK.LKGELPARNMALAKVTLRKQGITIRTIREKRKNIFEGLLKKKVKPLDIAI   73
NTDB id 1059 ABD1 RS01610 WP 000279215.1     MAVKKA......QMMPTFAYEGVDRKGVK.IKGELPAKNMALAKVTLRKQGVTVRNIREKRKNILEGLFKKKVTTLDITI   73
consensus                                      *         *  * * **   * ! * !** ! ** ***  ! ****    *     * *    ****   !!**

logo
NTDB id 361672 FCN78 RS02185 WP 069363365.1  FSRDLTTLLESGIPIVQALNLMALNQVKAEMRLLVRHIRQQLEAGTNLSEALAHASPLFDRFYCDLVATGEQTGQLPEIF  148
NTDB id 1169 A1552VC RS11075 WP 000648511.1  LTRQLATMLTTGVPIVQALKLVGDNHRKAEMKSILAQITKSVEAGTPLSKAMRTASAHFDTLYVDLVETGEMSGNLPEVF  152
NTDB id 1402 DSB67 RS12670 WP 010643257.1    FTRQIATMLMTGVPIVQALKLVSENHKKAEMKSILMSVTRAVEAGTPMSKAMRTASTHFDPLYTDLIATGEQSGNLSQVF  151
NTDB id 1112 NGFG RS09215 WP 003689811.1     FTRQLSTMIKAGLPLMQAFEIVARGHGNPSMTEMLMEIRGQVEQGSSLSRAFSNHPKYFDRFYCNLVAAGETGGVLESLL  154
NTDB id 1113 AAA85695.1 219..1451( )         FTRQLSTMINAGLPLMQAFEIVARGHGNPSMTEMLMEIRGQVEQGSSLSRAFSNHPKYFDRFYCNLVAAGETGGVLESLL  154
NTDB id 1252 GC085 RS07730 WP 011213805.1    FSRQLATMIESGIPLVQAFDIVAKGQSNKRLKDLIETIKHDIETGLTLAESLIKHPLYFNELFCNLVDAGEKSGSLDIML  151
NTDB id 1016 ACIAD RS01680 WP 004920476.1    FTRQLATMMKAGVPLVQAFEIVAEGLENPAMRDVVLGLKNEVEGGNTFAGALRKYPQYFDNLFCSLIESGEQSGSLEIML  153
NTDB id 1059 ABD1 RS01610 WP 000279215.1     FTRQLATMMKAGVPLVQGFEIVAEGLENPAMREVVLGIKGEVEGGSTFASALRKYPQHFDNLFCSLVESGEQSGALETML  153
consensus                                    **!***!**  !*!**!***** *  *  ***** **  *!*!**** **   *  !* *** !* *!! *! !* **

logo
NTDB id 361672 FCN78 RS02185 WP 069363365.1  ARLTLYREKQALLRSKVIKAMIYPSIVVSVALGVSAYLLVSVIPKFKRIFDSFGADLPWLTQQVLALSDIVSQHALTITL  228
NTDB id 1169 A1552VC RS11075 WP 000648511.1  ERLATYREKSEQLRAKVIKALIYPSMVVLVALGVSYLMLTMVIPEFESMFKGFGAELPWFTQQVLKLSHWVQAYSLWAFI  232
NTDB id 1402 DSB67 RS12670 WP 010643257.1    ERLATYREKSEQLRAKVIKALIYPAMVVLVALGVSYLMLTRVIPEFEKMFTGFGADLPAFTQMVLNLSAWTQNWGPFIGL  231
NTDB id 1112 NGFG RS09215 WP 003689811.1     DKLAIYKEKTQAIRKKVKTALTYPVSVIAVAIGLVFVMMIFVLPAFKEVYANMGAELPPLTQTVMDMSDFFVSYGWMVLI  234
NTDB id 1113 AAA85695.1 219..1451( )         DKLAIYKEKTQAIRKKVKTALTYPVSVIAVAIGLVFVMMIFVLPAFKEVYANMGAELPALTQTVMDMSDFFVSYGWMVLI  234
NTDB id 1252 GC085 RS07730 WP 011213805.1    DKVATYKEKIEIIKKKIKKALTYPIAVMVVALLVTAGLLIYVVPQFESLFKGFGADLPAMTRAVITMSEFMQAYWYIIFG  231
NTDB id 1016 ACIAD RS01680 WP 004920476.1    DRVAVYKEKSEVLKQKIKKAMKYPATVIVVAIVVTIILMVKVVPVFKDLFTSFGADLPAFTQLVVNMSNWMQDYWFILIL  233
NTDB id 1059 ABD1 RS01610 WP 000279215.1     DRVAIYKEKSELLKQKIKKAMKYPATVIVVAIVVTIILMVKVVPVFQDLFASFGADLPAFTQMVVNMSKWMQEYWFIMII  233
consensus                                    *****!*!!** ** !***!* !!  !**!!**** **** !*! !  **  *!!*!!* !* !* *! *** * *** *

logo
NTDB id 361672 FCN78 RS02185 WP 069363365.1  IVAGLAAAHQLLQRKNTTYQYHYHRWLLRLPVIGEVVSKACIAKFSRTLATTFSAGIPLLSGLQAATKSMTNAYYVHALK  308
NTDB id 1169 A1552VC RS11075 WP 000648511.1  AIAAAIFGLKALRKNSFQIRLKTSRLGLKFPIIGNVLAKASIAKFSRTLATSFAAGIPILASLKTTAKTSGNVHFETAIN  312
NTDB id 1402 DSB67 RS12670 WP 010643257.1    SFVSLLISGKIMSQRSDSFRLLAARSSLRVPILGPVLSKAAIAKFSRTLATSFSAGIPILTALKTTSKTSGNMHYQLAIE  311
NTDB id 1112 NGFG RS09215 WP 003689811.1     ALGFAIYGFLKLKARSIKIQRRMDAILLRMPIFGDIVRKGTIARWGRTTATLFAAGVPLVDVLDSTAGAAGNLIYEEATR  314
NTDB id 1113 AAA85695.1 219..1451( )         ALGFAIYRFLKLKARSIKIQRRMDAILLRMPIFGDIVRKGTIARWGRTTATLFAAGVPLVDVLDSTAGAAGNLIYEEATR  314
NTDB id 1252 GC085 RS07730 WP 011213805.1    ALGGVVYSFFYAKNHSLEFAQTIDRVMLKLPVIGPILEKAAIARFARTLSITFAAGLPLVEALKSVAGATGNIIYAKATD  311
NTDB id 1016 ACIAD RS01680 WP 004920476.1    VIGAAIAGFLEARKRSKRFRDQLDRLVLRLPIVGDLVYKAIIARYSRTLATTFAAGVPLIDALASTAGATNNTVYEQAVL  313
NTDB id 1059 ABD1 RS01610 WP 000279215.1     AIGAVIAAFLEAKKRSKKFRDGLDKLALKLPIFGDLVYKAIIARYSRTLATTFAAGVPLIDALESTAGATNNVIYEKAVM  313
consensus                                    **** * **  ** **  *   *****!**!**!*** !* !!***!!****!*!!*!****! *******!**** !*
```

```
logo
```

```
NTDB id 361672 FCN78 RS02185 WP 069363365.1   AVYQHTATGIPLYQALRDSNSFPVMVTQMVMIGEESGSLDNMLNRIAQIYEAEVDNTVDNLGKIIEPLLILVLGLLIGGL   388
NTDB id 1169 A1552VC RS11075 WP 000648511.1   EVYRDTAAGMPMYIAMRNTEAFPEMVLQMVMIGEESGQLDDMLNKVATIYEFEVDNTVDNLGKILEPLIIVFLGTVVGGL   392
NTDB id 1402 DSB67 RS12670 WP 010643257.1     EVYRDTAAGMPMYIAMRHCHVFPELVLQMVMIGEESGRLDDMLNKIAAIYEFEVDNTVDNLSKILEPLIIVFLGVVVGGL   391
NTDB id 1112 NGFG RS09215 WP 003689811.1      EIRTRVIQGLSMTSGMRATELFPNMMLQMSSIGEESGSLDDMLNKAAEFYEDEVDNAVGRLSAMMEPIIIVILGLVIGTL   394
NTDB id 1113 AAA85695.1 219..1451( )          EIRTRVIQGLSMTSGMRATELFPNMMLQMSSIGEESGSLDDMLNKAAEFYEDEVDNAVGWLSAMMEPIIILILGLVIGTL   394
NTDB id 1252 GCO85 RS07730 WP 011213805.1     KIREEVATGQQMFIAMENTHLFPNMVIQMVAIGEESGALEKMLSKVADFYEEEVNNAVDALSSLLEPIIMSILGILVGGL   391
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 361672 FCN78 RS02185 WP 069363365.1   VVAMYLPIFNLMSVLG.   404
NTDB id 1169 A1552VC RS11075 WP 000648511.1   VVAMYLPIFNLMSVLG.   408
NTDB id 1402 DSB67 RS12670 WP 010643257.1     VTAMYLPIFNLMSVLG.   407
NTDB id 1112 NGFG RS09215 WP 003689811.1      LVAMYLPLFNLGNVVA.   410
NTDB id 1113 AAA85695.1 219..1451( )          LVAMYLPLFNLGNVVA*   410
NTDB id 1252 GCO85 RS07730 WP 011213805.1     VVAMYLPIFKLGSAV..   406
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