```
logo
NTDB id 1402 DSB67 RS12670 WP 010643257.1      ...................MKTIAPQLKNYRWKGINSS.GKKTSGNVLAMTEIEVRERLDAQHIKIKKLKKGSISFITK.   59
NTDB id 1169 A1552VC RS11075 WP 000648511.1    ...................MKATQTLPLKNYRWKGINSN.GKKVSGQMLAISEIEVRDKLKDQHIQIKKLKKGSVSLLAR.   60
NTDB id 1252 GC085 RS07730 WP 011213805.1      ...................MDKNSPPLLTFHYQGINKA.GQKMEGDIQARSLAIAKADLRKQGIVTNKVVKKRKPLFDR.   59
NTDB id 1198 PSJM300 03950 AFN76868.1          ...................MAQKAIKNSVFTWEGLDRQ.GAKIKGELSGVSPALVKAQLRKQGINPQKVRKKSISLFS..   58
NTDB id 1016 ACIAD RS01680 WP 004920476.1      ...................MAAKKTQVMPVFAYEGVDRK.GIKLKGELPARNMALAKVTLRKQGITIRTIREKRKNIFEGL   61
NTDB id 1059 ABD1 RS01610 WP 000279215.1       ...................MAVKKAQMMPTFAYEGVDRK.GVKIKGELPAKNMALAKVTLRKQGVTVRNIREKRKNILEGL   61
NTDB id 997999 ABET68 RS03380 WP 014616068.1  MATRAPTANRSAAASARKTASTKAPTQYIFEWEGKDRK.GKAFKGEMRAESITEVNAVLRKQGLSITKSKRRRAA.....   74
NTDB id 1112 NGFG RS09215 WP 003689811.1       ...........MAKNGGFSLFAKKEKRFI..FEGRHSASDKLVNGEVSAFTEEEARKKLAKRGIRPLQITRVKTS.....   62
NTDB id 1113 AAA85695.1 219..1451( )           ...........MAKNGGFSLFAKKEKRFI..FEGRHSASDKLVNGEVSAFTEEEARKKLAKRGIRPLQITRVKTS.....   62
consensus                                                   *  *   * ** **!* *  **** !** * *  ***  !***** * ****** **

logo
NTDB id 1402 DSB67 RS12670 WP 010643257.1      ISHRVKGKDITIFTRQIATMLMTGVPIVQALKLVSENHKKAEMKSILMSVTRAVEAGTPMSKAMRTASTHFDPLYTDLIA   139
NTDB id 1169 A1552VC RS11075 WP 000648511.1    LTHRVKSKDITILTRQLATMLTTGVPIVQALKLVGDNHRKAEMKSILAQITKSVEAGTPLSKAMRTASAHFDTLYVDLVE   140
NTDB id 1252 GC085 RS07730 WP 011213805.1      KNKKITQADITVFSRQLATMIESGIPLVQAFDIVAKGQSNKRLKDLIETIKHDIETGLTLAESLIKHPLYFNELFCNLVD   139
NTDB id 1198 PSJM300 03950 AFN76868.1          AGKKIKPMDIALFTRQMATMMKAGVPLLQSFDIIGEGFDNPNMRKLVDDLKQEVAAGNSFASSLRKKPQYFDDLYCNLVD   138
NTDB id 1016 ACIAD RS01680 WP 004920476.1      LKKKVKPLDIAIFTRQLATMMKAGVPLVQAFEIVAEGLENPAMRDVVLGLKNEVEGGNTFAGALRKYPQYFDNLFCSLIE   141
NTDB id 1059 ABD1 RS01610 WP 000279215.1       FKKKVTTLDITIFTRQLATMMKAGVPLVQGFEIVAEGLENPAMREVVLGIKGEVEGGSTFASALRKYPQHFDNLFCSLVE   141
NTDB id 997999 ABET68 RS03380 WP 014616068.1  RGKKITPKDVAYFTRQLSTMLKAGVPLLQSVDIIARGHANPNFTQLLTEIRVDIESGSSMAQAFRRHPKYFDSLYCNLID   154
NTDB id 1112 NGFG RS09215 WP 003689811.1       SKRKITQEDITVFTRQLSTMIKAGLPLMQAFEIVARGHGNPSMTEMLMEIRGQVEQGSSLSRAFSNHPKYFDRFYCNLVA   142
NTDB id 1113 AAA85695.1 219..1451( )           SKRKITQEDITVFTRQLSTMINAGLPLMQAFEIVARGHGNPSMTEMLMEIRGQVEQGSSLSRAFSNHPKYFDRFYCNLVA   142
consensus                                        ****  !*****!!**!!***!*!**!********* ** ****** ** ****!**** **** * *!* ****!**

logo
NTDB id 1402 DSB67 RS12670 WP 010643257.1      TGEQSGNLSQVFERLATYREKSEQLRAKVIKALIYPAMVVLVALGVSYLMLTRVIPEFEKMFTGFGADLPAFTQMVLNLS   219
NTDB id 1169 A1552VC RS11075 WP 000648511.1    TGEMSGNLPEVFERLATYREKSEQLRAKVIKALIYPSMVVLVALGVSYLMLTMVIPEFESMFKGFGAELPWFTQQVLKLS   220
NTDB id 1252 GC085 RS07730 WP 011213805.1      AGEKSGSLDIMLDKVATYKEKIEIIKKKIKKALTYPIAVMVVALLVTAGLLIYVVPQFESLFKGFGADLPAMTRAVITMS   219
NTDB id 1198 PSJM300 03950 AFN76868.1          SGEQSGSLETLLDRVATYKEKTEALKAKIKKAMNYPIAVVLVAVIVTAILLIKVVPQFQDVFANFGAELPAFTLMVIGLS   218
NTDB id 1016 ACIAD RS01680 WP 004920476.1      SGEQSGSLEIMLDRVAVYKEKSEVLKQKIKKAMKYPATVIVVAIVVTIILMVKVVPVFKDLFTSFGADLPAFTQLVVNMS   221
NTDB id 1059 ABD1 RS01610 WP 000279215.1       SGEQSGALETMLDRVAIYKEKSELLKQKIKKAMKYPATVIVVAIVVTIILMVKVVPVFQDLFASFGADLPAFTQMVVNMS   221
NTDB id 997999 ABET68 RS03380 WP 014616068.1  AGEQGGILDALLERLSMYMEKSIALKAQIKSAMIYPISVLTVAFLVTVVLMIFVVPAFKNVFASFGATLPAPTLVVMNIS   234
NTDB id 1112 NGFG RS09215 WP 003689811.1       AGETGGVLESLLDKLAIYKEKTQAIRKKVKTALTYPVSVIAVAIGLVFVMMIFVLPAFKEVYANMGAELPPLTQTVMDMS   222
NTDB id 1113 AAA85695.1 219..1451( )           AGETGGVLESLLDKLAIYKEKTQAIRKKVKTALTYPVSVIAVAIGLVFVMMIFVLPAFKEVYANMGAELPALTQTVMDMS   222
consensus                                      *!!**! !* *******!*!!** ** ****!* !!**!**!!**** **** !*! ! **** *!!*!!**!**!* *!

logo
NTDB id 1402 DSB67 RS12670 WP 010643257.1      AWTQNWGPFIGLSFVSLLISGKIMSQRSDSFRLLAARSSLRVPILGPVLSKAAIAKFSRTLATSFSAGIPILTALKTTSK   299
NTDB id 1169 A1552VC RS11075 WP 000648511.1    HWVQAYSLWAFIAIAAAIFGLKALRKNSFQIRLKTSRLGLKFPIIGNVLAKASIAKFSRTLATSFAAGIPILASLKTTAK   300
NTDB id 1252 GC085 RS07730 WP 011213805.1      EFMQAYWYIIFGALGGVVYSFFYAKNHSLEFAQTIDRVMLKLPVIGPILEKAAIARFARTLSITFAAGLPLVEALKSVAG   299
NTDB id 1198 PSJM300 03950 AFN76868.1          EALQAWWYVVLAGFVGAAYAFKQAHTRSEKFRNWFDRLMLKVPVVGDILYKSSVARFARTLSTTFAAGVPLVDALDSVAG   298
NTDB id 1016 ACIAD RS01680 WP 004920476.1      NWMQDYWFILILVIGAAIAGFLEARKRSKRFRDQLDRLVLRLPIVGDLVYKAIIARYSRTLATTFAAGVPLIDALASTAG   301
NTDB id 1059 ABD1 RS01610 WP 000279215.1       KWMQEYWFIMIIAIGAVIAAFLEAKKRSKKFRDGLDKLALKLPIFGDLVYKAIIARYSRTLATTFAAGVPLIDALESTAG   301
NTDB id 997999 ABET68 RS03380 WP 014616068.1  DFFVKWWYIIIFAPVVGIFLYARAFKRSLKVQRNTHKAILKMPIFGSIIRKATIARWTRTLATMFSAGTPLVESMESVAG   314
NTDB id 1112 NGFG RS09215 WP 003689811.1       DFFVSYGWMVLIALGFAIYGFLKLKARSIKIQRRMDAILLRMPIFGDIVRKGTIARWGRTTATLFAAGVPLVDVLDSTAG   302
NTDB id 1113 AAA85695.1 219..1451( )           DFFVSYGWMVLIALGFAIYRFLKLKARSIKIQRRMDAILLRMPIFGDIVRKGTIARWGRTTATLFAAGVPLVDVLDSTAG   302
consensus                                      **** ***************  ** *! ***  *****!**!**!*** !***!***!!****!*!!*!*********
```

```
logo
NTDB id 1402 DSB67 RS12670 WP 010643257.1      TSGNMHYQLAIEEVYRDTAAGMPMYIAMRHCHVFPELVLQMVMIGEESGRLDDMLNKIAAIYEFEVDNTVDNLSKILEPL   379
NTDB id 1169 A1552VC RS11075 WP 000648511.1    TSGNVHFETAINEVYRDTAAGMPMYIAMRNTEAFPEMVLQMVMIGEESGQLDDMLNKVATIYEFEVDNTVDNLGKILEPL   380
NTDB id 1252 GCO85 RS07730 WP 011213805.1      ATGNIIYAKATDKIREEVATGQQMFIAMENTHLFPNMVIQMVAIGEESGALEKMLSKVADFYEEEVNNAVDALSSLLEPI   379
NTDB id 1198 PSJM300 03950 AFN76868.1          ATGNVVFRSATNKIKSDVSSGMQLNFSMRTTGTFPSMAVQMTAIGEESGALDEMLSKVATFYEDEVDNMVDGLTALMEPM   378
NTDB id 1016 ACIAD RS01680 WP 004920476.1      ATNNTVYEQAVLKIREDVSTGQQLNFAMRVSNRFPTMAIQMVAIGEESGALDEMLDKVANYYESEVDHAVDGLTSMMEPL   381
NTDB id 1059 ABD1 RS01610 WP 000279215.1       ATNNVIYEKAVMKIREDVATGQQLQFAMRISNRFPSMAIQMVAIGEESGALDSMLDKVATYYENEVDNAVDGLTSMMEPL   381
NTDB id 997999 ABET68 RS03380 WP 014616068.1  AAGNWVYHDATLEIQQSVRIGTSLTNAMQATHVFDNMVLQMTQIGEESGALDNMLLKVAEFYEREVDDAVANISALIEPI   394
NTDB id 1112 NGFG RS09215 WP 003689811.1       AAGNLIYEEATREIRTRVIQGLSMTSGMRATELFPNMMLQMSSIGEESGSLDDMLNKAAEFYEDEVDNAVGRLSAMMEPI   382
NTDB id 1113 AAA85695.1 219..1451( )           AAGNLIYEEATREIRTRVIQGLSMTSGMRATELFPNMMLQMSSIGEESGSLDDMLNKAAEFYEDEVDNAVGWLSAMMEPI   382
consensus                                      ***!**** !* *** **  !* *  *!* * *!* ***!!* !!!!!!*!**!! !*! *!! !!***!* ** **!!*
```

```
   <0
logo
NTDB id 1402 DSB67 RS12670 WP 010643257.1      IIVFLGVVVGGLVTAMYLPIFNLMSVLG.   407
NTDB id 1169 A1552VC RS11075 WP 000648511.1    IIVFLGTVVGGLVVAMYLPIFNLMSVLG.   408
NTDB id 1252 GCO85 RS07730 WP 011213805.1      IMSILGILVGGLVVAMYLPIFKLGSAV..   406
NTDB id 1198 PSJM300 03950 AFN76868.1          IMAVLGVLVGGLIIAMYLPIFQMGSVV..   405
NTDB id 1016 ACIAD RS01680 WP 004920476.1      IMAILGILVGGLVIAMYLPIFQMGSVV..   408
NTDB id 1059 ABD1 RS01610 WP 000279215.1       IMAILGVLVGGLVIAMYLPIFQMGSVV..   408
NTDB id 997999 ABET68 RS03380 WP 014616068.1  IIVILGVLIGGMVVAMYLPIFKLGQVV..   421
NTDB id 1112 NGFG RS09215 WP 003689811.1       IIVILGLVIGTLLVAMYLPLFNLGNVVA.   410
NTDB id 1113 AAA85695.1 219..1451( )           IILILGLVIGTLLVAMYLPLFNLGNVVA*   410
consensus                                      !***!!***!****!!!!!*!******
```

X non conserved

X similar

X ≥ 50% conserved