```
logo
NTDB id 1177 A1552VC RS01165 WP 000422572.1  ....MELNQYLDGMLTHKASDLYITVGAPILYRVDGELRAQGEA.LSVADVTALLHAMMDDARQAEFKQTREANFAVVRD   75
NTDB id 1019 ACIAD RS04205 WP 004922051.1    ....MDFNDLLNLMAKHKASDLFITAGVEPSLKINGEITPVSKTKLDGDMIAQLIDSITTQKQRQEFIETHECNFAILNR   76
NTDB id 369953 FGA12 RS13605 WP 033539856.1 ....MEVRPFLKVMVERKASDLFITAGFPPSAKVDGEVRPLAENPFTPAQSLEFVEALMTEAQRKEFHETRECNFAYGEK   76
NTDB id 1203 PSJM300 01605 AFN76401.1        ....MEFEKLLRLMVEKGGSDLFITAGVPPSMKVNGKILPVNKTPMSPEMTRETVHGVMNEQQRREFTENHECNFAISAR   76
NTDB id 1307 DR RS10055 WP 010888596.1       MTSGIDITDILRLAADKGASDIILAAGLPPQFKLSGDYDAQGFEPLSASDTRKLMYSMMNERQQRIFEEKRELDFSFALG   80
NTDB id 1185 GTF74 RS11940 WP 000350195.1    ....MDIAELLEFSVKHNASDLHLSAGVPPMVRIDGEVRKLGVPAFTHSDVHRLIFEIMNDAQRSEYEEKLEVDFSFELP   76
NTDB id 1176 A1552VC RS01160 WP 000350195.1 ....MDIAELLEFSVKHNASDLHLSAGVPPMVRIDGEVRKLGVPAFTHSDVHRLIFEIMNDAQRSEYEEKLEVDFSFELP   76
NTDB id 1283 ACE17W RS02630 WP 010947729.1  ....MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEEFFETDFSFEIA   76
NTDB id 1259 GC085 RS10305 WP 010947729.1   ....MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEEFFETDFSFEIA   76
NTDB id 1060 ABD1 RS04380 WP 000355489.1    ....MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFSFEVP   76
NTDB id 1040 HON27 RS13360 WP 000355489.1   ....MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFSFEVP   76
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   ....MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFSFEVP   76
consensus                                      *** **! ****  *!!*****!********!***** ** * * ** ***************** ! *!****
```

```
logo
NTDB id 1177 A1552VC RS01165 WP 000422572.1  ..SGRFRVSAFFQRELPGAVIRRIETRIPTFEELKLPEVLQNLAIAKRGLVLVVGATGSGKSTTMAAMTGYRNQHRTGHI  153
NTDB id 1019 ACIAD RS04205 WP 004922051.1    EKNERFRVSAFQQRDMPGMVIRRIETKIPSPDDLHLPPILKELAMSKRGIIIFSGATGTGKSTSLASMIQHRNQHSKGHI  156
NTDB id 369953 FGA12 RS13605 WP 033539856.1 D.LGRFRVSAFWQRESPGCVMRRIETKIPLVEDLHLPPILKDLVMSKRGLIIMVGGTGTGKSTSLAALVGYRNAHARGHI  155
NTDB id 1203 PSJM300 01605 AFN76401.1        G.IGRFRVSAFYQRNLAGMVLRRIETNIPTIEDLKLPDVLKKLALTKRGLVLFVGATGTGKSTSLAAMIGYRNKNSSGHI  155
NTDB id 1307 DR RS10055 WP 010888596.1       D.KARFRVNAFMQRGNVGGVMRLIPTTVRTIAEMGLPQTVIDIANAPRGLVLVTGPTGSGKSTTLASMIDHINTTKKLHI  159
NTDB id 1185 GTF74 RS11940 WP 000350195.1    N.VGRFRVNAFHQARGCSAVFRTIPTVIPTLEQLDAPEIFSKIANYEKGLVLVTGPTGSGKSTTLAAMVNYVNAHHNKHI  155
NTDB id 1176 A1552VC RS01160 WP 000350195.1 N.VGRFRVNAFHQARGCSAVFRTIPTVIPTLEQLDAPEIFSKIANYEKGLVLVTGPTGSGKSTTLAAMVNYVNAHHNKHI  155
NTDB id 1283 ACE17W RS02630 WP 010947729.1  N.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTTLAAVIDYINSSRYEHI  155
NTDB id 1259 GC085 RS10305 WP 010947729.1   N.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTTLAAVIDYINSSRYEHI  155
NTDB id 1060 ABD1 RS04380 WP 000355489.1    N.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENRYDHI  155
NTDB id 1040 HON27 RS13360 WP 000355489.1   N.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENRYDHI  155
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   N.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENRYDHI  155
consensus                                   * **!!!!*!! ! ** **!*!*!** * ***** ** ****** * *!*****!*!!*!!!!**!*** **!  *  !!
```

```
logo
NTDB id 1177 A1552VC RS01165 WP 000422572.1  LTVEDPIEFVHEHKRCIVTQREVGLDTESYEVALKNSLRQAPDMILIGEIRSRETMEYAMTFAETGHLCMATLHANNANQ  233
NTDB id 1019 ACIAD RS04205 WP 004922051.1    ITIEDPIEFIHEHAGCIITQREVGIDTDSFEIALKNTLRQAPDVILIGEIRSREVMDYALAFAETGHLVFATLHANNANQ  236
NTDB id 369953 FGA12 RS13605 WP 033539856.1 LTIEDPVEFVHDHRKSIITQREVGIDTDSFDAALKSSLRQAPDVILIGEIRTQETMEFALSFAETGHLCMATLHANNANQ  235
NTDB id 1203 PSJM300 01605 AFN76401.1        ISIEDPIEFIHQHQNCIVTQREVGIDTDSFEVALKNTLRQAPDVILIGEVRTRETMDHAVAFAETGHLCLATLHANNANQ  235
NTDB id 1307 DR RS10055 WP 010888596.1       LTIEDPIEFMHPNKASIINQREVGSDTLSFDDALRAALRQAPDVILVGEMRDYETIKAAVTAAETGHLVMGTLHTNSAPE  239
NTDB id 1185 GTF74 RS11940 WP 000350195.1    LTIEDPIEFVHSNNKCLINQREVHRDTHSFKNALRSALREDPDVILVGELRDQETISLALTAAETGHLVFGTLHTSSAAK  235
NTDB id 1176 A1552VC RS01160 WP 000350195.1 LTIEDPIEFVHSNNKCLINQREVHRDTHSFKNALRSALREDPDVILVGELRDQETISLALTAAETGHLVFGTLHTSSAAK  235
NTDB id 1283 ACE17W RS02630 WP 010947729.1  LTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLAMTAAETGHLVFGTLHTNSATK  235
NTDB id 1259 GC085 RS10305 WP 010947729.1   LTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLAMTAAETGHLVFGTLHTNSATK  235
NTDB id 1060 ABD1 RS04380 WP 000355489.1    LTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK  235
NTDB id 1040 HON27 RS13360 WP 000355489.1   LTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK  235
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   LTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK  235
consensus                                   ***!!!*!!*!  ******!!!!!**!! **  !!***!!**!!*!!*!!*!* !** *!***!!!!!!***!!!***! *
```

```
logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1   ALERILHLVPKEQREQFLLDLSLNLKGVIAQQLLRDKNGKGRHGVFEVLLNSPRIADLIRRGELHELKATMARSQEVGMQ   313
NTDB id 1019 ACIAD RS04205 WP 004922051.1     TLERIIHFFDADRHQQIFMDLSLNLKAVISQQLIPTHDGQSRRAAVEVLINTPLLSDYIRQGEIYKIKELMARSGELGMQ   316
NTDB id 369953 FGA12 RS13605 WP 033539856.1   ALDRIMHLVPESKHQQLLFDLSLNLRGIVAQQLVPKSDGTGRRAAIEVLINTPRVSSIIQKNELHLLKETMAKSNEQGMQ   315
NTDB id 1203 PSJM300 01605 AFN76401.1         ALDRIINFFPADRQNQVWMDLSLNLKAIVAQQLVPTPDGKGRRAVIEVLINTPLAADLIRKGEVHELKGLMKRSTDLGMQ   315
NTDB id 1307 DR RS10055 WP 010888596.1        SIDRIVDVFPEEQQEQIRVQLANNLVAVMTQQLLPRADGQGRVLAYEILLANPAVRALIREGKTFQITSVMQTGAREGMV   319
NTDB id 1185 GTF74 RS11940 WP 000350195.1     TIDRIIDVFPGSDKDMVRSMLSESLRAVIAQKLLKR.VGGGRVACHEIMLATPAIRNLIREDKVAQMYSIIQTGAAHGMQ   314
NTDB id 1176 A1552VC RS01160 WP 000350195.1   TIDRIIDVFPGSDKDMVRSMLSESLRAVIAQKLLKR.VGGGRVACHEIMLATPAIRNLIREDKVAQMYSIIQTGAAHGMQ   314
NTDB id 1283 ACE17W RS02630 WP 010947729.1    TINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLKK.NKGGRVAALEIMMCTGAIRNLIREDKIAQMYSSIQTGQAKGMQ   314
NTDB id 1259 GC085 RS10305 WP 010947729.1     TINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLKK.NKGGRVAALEIMMCTGAIRNLIREDKIAQMYSSIQTGQAKGMQ   314
NTDB id 1060 ABD1 RS04380 WP 000355489.1      TIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGANHGMT   314
NTDB id 1040 HON27 RS13360 WP 000355489.1     TIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGANHGMT   314
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     TIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGANHGMT   314
consensus                                     ***!*************** *!****! ****! !***  ***!*** !*** *******!** ******* *****  !!*

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1   TFDQALYQLVVDDKISEQDALHSADSANDLRLMLKTKRGDDYGS...GSLQNVKI........DME..............   368
NTDB id 1019 ACIAD RS04205 WP 004922051.1     TFDQALFDLYDHQHISYADALKHADSPNNLRLQIKLSEEANKPLDNRERMSEMER........KMTFDGQRRNLK.....   383
NTDB id 369953 FGA12 RS13605 WP 033539856.1   TFDQALLKLYVEGEISYSDALHHADSPNDLRLMIKLQSSESASS..G.FMEGVTL........DLD..............   370
NTDB id 1203 PSJM300 01605 AFN76401.1         TFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLGSETDGEHLTS.VSQGLTL........EMSDDDPGRSFR.....   381
NTDB id 1307 DR RS10055 WP 010888596.1        TMDAYLAGLFRRHLITYDKGLERA.IDPKE..FARLANDASAGLGGA.SMTPAAPPVPAYNSASSSSTGRGGDFGRGAAA   395
NTDB id 1185 GTF74 RS11940 WP 000350195.1     TMEQNAKQLIARGVVDAQEVQSKIELDLKA..F...............................................   345
NTDB id 1176 A1552VC RS01160 WP 000350195.1   TMEQNAKQLIARGVVDAQEVQSKIELDLKA..F...............................................   345
NTDB id 1283 ACE17W RS02630 WP 010947729.1    TLDQHLTELVNKNIISKHTAHEAA.LNKSL..F...............................................   344
NTDB id 1259 GC085 RS10305 WP 010947729.1     TLDQHLTELVNKNIISKHTAHEAA.LNKSL..F...............................................   344
NTDB id 1060 ABD1 RS04380 WP 000355489.1      TLDQSLKGLVARGVISPQTARTAA.KQPES..FL..............................................   345
NTDB id 1040 HON27 RS13360 WP 000355489.1     TLDQSLKGLVARGVISPQTARTAA.KQPES..FL..............................................   345
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     TLDQSLKGLVSRGVISPQTARTAA.KQPES..FL..............................................   345
consensus                                     !*** *  !* *****   *   *         **

logo

NTDB id 1177 A1552VC RS01165 WP 000422572.1   .......................   368
NTDB id 1019 ACIAD RS04205 WP 004922051.1     .......................   383
NTDB id 369953 FGA12 RS13605 WP 033539856.1   .......................   370
NTDB id 1203 PSJM300 01605 AFN76401.1         .......................   381
NTDB id 1307 DR RS10055 WP 010888596.1        PATPAAPAAGRSEPGRAGGFGRR   418
NTDB id 1185 GTF74 RS11940 WP 000350195.1     .......................   345
NTDB id 1176 A1552VC RS01160 WP 000350195.1   .......................   345
NTDB id 1283 ACE17W RS02630 WP 010947729.1    .......................   344
NTDB id 1259 GC085 RS10305 WP 010947729.1     .......................   344
NTDB id 1060 ABD1 RS04380 WP 000355489.1      .......................   345
NTDB id 1040 HON27 RS13360 WP 000355489.1     .......................   345
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     .......................   345
consensus
```

X non conserved
X similar
X ≥ 50% conserved