```
logo

NTDB id 1307 DR RS10055 WP 010888596.1      MTSGIDITDDILRLAADKGASDIILAAGLPPQFKLSGDYDAQGFEPLSASDTRKLMYSMMNERQQRIFEEKRELDFSFALG  80
NTDB id 1116 NGFG RS10615 WP 003690200.1    ....MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMRRINLPEMSAEEVGNMVTSVMNDHQRKIYQQNLEVDFSFELP  76
NTDB id 1086 NMV RS00245 WP 002218487.1     ....MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMRRINLPEMSAEEVGNMVTSVMNDHQRKIYQQNLEVDFSFELP  76
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 GCO85 RS10305 WP 010947729.1   ....MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEEFFETDFSFEIA  76
NTDB id 1194 PAKAF RS01995 WP 003084552.1   ....MDITELLAFSAKQGASDLHLSAGLPPMIRVDGDVRRINLPPLEHKQVHALIYDIMNDKQRKDFEEFLETDFSFEVP  76
NTDB id 1202 PSJM300 01600 AFN76400.1       ....MDITELLAFSAKQGASDLHLSSGLPPMIRVDGDVRRINLPAMDHKQVHALIYDIMNDKQRKDFEEFLETDFSFEVP  76
NTDB id 1020 ACIAD RS04210 WP 011182164.1   ....MDITELLAFSVQNRASDLHLSAGIPPMIRVDGEVRRINLPAMDHSEVHNLIYDIMNDKQRRDYEEKLETDFSFEVP  76
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   ....MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFSFEVP  76
NTDB id 1060 ABD1 RS04380 WP 000355489.1    ....MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFSFEVP  76
NTDB id 1040 HON27 RS13360 WP 000355489.1   ....MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFSFEVP  76
NTDB id 310495 DZA55 RS18160 WP 011407601.1 ....MDIGYFLKLMTEKNASDMFLTTGAPVHIKIEGKLYPLGNTGLPPGMVKKIAYSLMDEGQVPQFEERELELNIAIALP  76
NTDB id 1177 A1552VC RS01165 WP 000422572.1 ....MELNQYLDGMLTHKASDLYITVGAPILYRVDGELRAQGEAL.SVADVTALLHAMMDDARQAEFKQTREANFAVVRD  75
NTDB id 1203 PSJM300 01605 AFN76401.1       ....MEFEKLLRLMVEKGGSDLFITAGVPPSMKVNGKILPVNKTPMSPEMTRETVHGVMNEQQRREFTENHECNFAISAR  76
NTDB id 1019 ACIAD RS04205 WP 004922051.1   ....MDFNDLLNLMAKHKASDLFITAGVEPSLKINGEITPVSKTKLDGDMIAQLIDSITTQKQRQEFIETHECNFAILNR  76
consensus                                     *** **!****** *!!*****!*********!********* * * **  ******************** *! *******

logo

NTDB id 1307 DR RS10055 WP 010888596.1      D.KARFRVNAFMQRGNVGGVMRLIPTTVRTIAEMGLPQTVIDIANAPRGLVLVTGPTGSGKSTTLASMIDHINTTKKLHI 159
NTDB id 1116 NGFG RS10615 WP 003690200.1    N.VARFRVNAFNTGRGPAAVFRTIPSTVLSLEELKAPSIFQKIAESPRGMVLVTGPTGSGKSTTLAAMINYINETQPAHI 155
NTDB id 1086 NMV RS00245 WP 002218487.1     N.VARFRVNAFNIGRGPAAVFRTIPSTVLSLEELKAPSIFQKIAESPRGMVLVTGPTGSGKSTTLAAMINYINETQPAHI 155
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 GCO85 RS10305 WP 010947729.1   N.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTTLAAVIDYINSSRYEHI 155
NTDB id 1194 PAKAF RS01995 WP 003084552.1   G.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEELGMGEVFKRVSDVPRGLVLVTGPTGSGKSTTLAAMLDYLNNTKYHHI 155
NTDB id 1202 PSJM300 01600 AFN76400.1       G.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGMGEVFRKITDVPRGLVLVTGPTGSGKSTTLAAMLDYLNNTKYHHI 155
NTDB id 1020 ACIAD RS04210 WP 011182164.1   N.LARFRVNVFNQNRGAGAVFRTIPSQVLTLEELGLGKIFRDICDYPRGLVLVTGPTGSGKSTTLAAMLDYINNHRYDHI 155
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   N.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENRYDHI 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 310495 DZA55 RS18160 WP 011407601.1 D.AGRFRVNAFKQRGEVGMVIRAIRSRIPSIEELHLPQVLKDIIMAPRGLVLVVGSTGSGKSTSLAAMIDHRNSTTTGHI 155
NTDB id 1177 A1552VC RS01165 WP 000422572.1 ..SGRFRVSAFFQRELPGAVIRRIETRIPTFEELKLPEVLQNLAIAKRGLVLVVGATGSGKSTTMAAMTGYRNQHRTGHI 153
NTDB id 1203 PSJM300 01605 AFN76401.1       G.IGRFRVSAFYQRNLAGMVLRRIETNIPTIEDLKLPDVLKKLALTKRGLVLFVGATGTGKSTSLAAMIGYRNKNSSGHI 155
NTDB id 1019 ACIAD RS04205 WP 004922051.1   EKNERFRVSAFQQRDMPGMVIRRIETKIPSPDDLHLPPILKELAMSKRGIIIFSGATGTGKSTSLASMIQHRNQHSKGHI 156
consensus                                   * **!!!!**!** ** **!*!*!** ******* ** *** **  **!*****!*!!*!!!!**!*******!  *  !!
```

logo

```
NTDB id 1307 DR RS10055 WP 010888596.1      LTIEDPIEFMHPNKASIINQREVGSDTLSFDDALRAALRQAPDVILVGEMRDYETIKAAVTAAETGHLVMGTLHTNSAPE   239
NTDB id 1116 NGFG RS10615 WP 003690200.1    LTIEDPIEFVHQSKKSLINQRELHQHTLSFANALSSALREDPDVILVGEMRDPETIGLALTAAETGHLVFGTLHTTGAAK   235
NTDB id 1086 NMV RS00245 WP 002218487.1     LTIEDPIEFVHQSKKSLINQRELHQHTLSFANALRSALREDPDVILVGEMRDPETIGLALTAAETGHLVFGTLHTTGAAK   235
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 GCO85 RS10305 WP 010947729.1   LTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLAMTAAETGHLVFGTLHTNSATK   235
NTDB id 1194 PAKAF RS01995 WP 003084552.1   LTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK   235
NTDB id 1202 PSJM300 01600 AFN76400.1       LTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK   235
NTDB id 1020 ACIAD RS04210 WP 011182164.1   LTVEDPIEFVHEPKKCLINQREVHRDTLGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK   235
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   LTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK   235
NTDB id 1060 ABD1 RS04380 WP 000355489.1    LTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK   235
NTDB id 1040 HON27 RS13360 WP 000355489.1   LTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTSAAK   235
NTDB id 310495 DZA55 RS18160 WP 011407601.1 LTIEDPIEYLHKHKMSIVNQREVGLDTHAFQSALKNAMREAPDVILIGEILDAETMEAAIAFAETGHLCLATLHSNNADQ   235
NTDB id 1177 A1552VC RS01165 WP 000422572.1 LTVEDPIEFVHEHKRCIVTQREVGLDTESYEVALKNSLRQAPDMILIGEIRSRETMEYAMTFAETGHLCMATLHANNANQ   233
NTDB id 1203 PSJM300 01605 AFN76401.1       ISIEDPIEFIHQHQNCIVTQREVGIDTDSFEVALKNTLRQAPDVILIGEVRTRETMDHAVAFAETGHLCLATLHANNANQ   235
NTDB id 1019 ACIAD RS04205 WP 004922051.1   ITIEDPIEFIHEHAGCIITQREVGIDTDSFEIALKNTLRQAPDVILIGEIRSREVMDYALAFAETGHLVFATLHANNANQ   236
consensus                                   ***!!!!!**!  ******!!!*****! **  !!****!**!!*!!*!!***  !** *!***!!!!!!***!!!***!**
```

logo

```
NTDB id 1307 DR RS10055 WP 010888596.1      SIDRIVDVFPEEQQEQIRVQLANNLVAVMTQQLLPRADGQGRVLAYEILLANPAVRALIREGKTFQITSVMQTGAREGMV   319
NTDB id 1116 NGFG RS10615 WP 003690200.1    TVDRIVDVFPAGEKEMVRSMLSESLTAVISQNLLKTHDGNGRVASHEILIANPAVRNLIRENKITQINSVLQTGQASGMQ   315
NTDB id 1086 NMV RS00245 WP 002218487.1     TVDRIVDVFPAGEKEMVRSMLSESLTAVISQNLLKTHDGNGRVASHEILIANPAVRNLIRENKITQINSVLQTGQASGMQ   315
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 GCO85 RS10305 WP 010947729.1   TINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLKK.NKGGRVAALEIMMCTGAIRNLIREDKIAQMYSSIQTGQAKGMQ   314
NTDB id 1194 PAKAF RS01995 WP 003084552.1   TIDRVVDVFPAEEKAMVRSMLSESLQSVISQTLIKK.IGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSAIQTGGSLGMQ   314
NTDB id 1202 PSJM300 01600 AFN76400.1       TIDRVVDVFPAEEKSMVRSMLSESLQAVISQTLLKK.VGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSSIQTGGSLGMQ   314
NTDB id 1020 ACIAD RS04210 WP 011182164.1   TIDRIIDVFPAEEKDMVRTMLSESLQAVISQTLLKK.EGGGRVAAHEIMIGIPAIRNLIREGKVAQMYSSIQTGATHGMT   314
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   TIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGANHGMT   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 310495 DZA55 RS18160 WP 011407601.1 TIERILNFFPESAHNNVLMNLALNLRAVISQRLVKGLDGRR.RPATEVLLNTPMIRDLLRRGQVHEVKQAMEESLEEGMQ   314
NTDB id 1177 A1552VC RS01165 WP 000422572.1 ALERILHLVPKEQREQFLLDLSLNLKGVIAQQLLRDKNGKGRHGVFEVLLNSPRIADLIRRGELHELKATMARSQEVGMQ   313
NTDB id 1203 PSJM300 01605 AFN76401.1       ALDRIINFFPADRQNQVWMDLSLNLKAIVAQQLVPTPDGKGRRAVIEVLINTPLAADLIRKGEVHELKGLMKRSTDLGMQ   315
NTDB id 1019 ACIAD RS04205 WP 004922051.1   TLERIIHFFDADRHQQIFMDLSLNLKAVISQQLIPTHDGQSRRAAVEVLINTPLLSDYIRQGEIYKIKELMARSGELGMQ   316
consensus                                   ***!*************** *!***!  ****!  !***   ********!**************!* ******* *****   !!*
```

logo

```
NTDB id 1307 DR RS10055 WP 010888596.1      TMDAYLAGLFRRHLITYDKGLERAID.PKEF..ARLANDASAGLGG.ASMTPAAPPVPAYNSASSSSTGRGGDFGRGAAA  395
NTDB id 1116 NGFG RS10615 WP 003690200.1    TMDQSLQSLVRQGLIAPEAARRRAQNSESMS..F.....................................................  347
NTDB id 1086 NMV RS00245 WP 002218487.1     TMDQSLQSLVRQGLIAPEVARRRAQNSESMS..F.....................................................  347
NTDB id 1185 GTF74 RS11940 WP 000350195.1   TMEQNAKQLIARGVVDAQEVQSKIELDLKAF.....................................................  345
NTDB id 1176 A1552VC RS01160 WP 000350195.1 TMEQNAKQLIARGVVDAQEVQSKIELDLKAF.....................................................  345
NTDB id 1283 ACE17W RS02630 WP 010947729.1  TLDQHLTELVNKNIISKHTAHEAALN.KSLF.....................................................  344
NTDB id 1259 GCO85 RS10305 WP 010947729.1   TLDQHLTELVNKNIISKHTAHEAALN.KSLF.....................................................  344
NTDB id 1194 PAKAF RS01995 WP 003084552.1   TLDMCLKGLVAKGLISRENAREKAKI.PENF.....................................................  344
NTDB id 1202 PSJM300 01600 AFN76400.1       TLDSCLKGLLAKGLISRDSAKEKAKQ.PENF.....................................................  344
NTDB id 1020 ACIAD RS04210 WP 011182164.1   TLDQSLKQLLAKGIINLPTARAVAKS.PESF.....................................................  344
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   TLDQSLKGLVSRGVISPQTARTAAKQ.PESF..L..................................................  345
NTDB id 1060 ABD1 RS04380 WP 000355489.1    TLDQSLKGLVARGVISPQTARTAAKQ.PESF..L..................................................  345
NTDB id 1040 HON27 RS13360 WP 000355489.1   TLDQSLKGLVARGVISPQTARTAAKQ.PESF..L..................................................  345
NTDB id 310495 DZA55 RS18160 WP 011407601.1 TFDQCLFRMVKSGEIEQEEALRAADSRDGLALKFRLSEDGSGEHDPYADYETPAAP........KISH....GFI.....  377
NTDB id 1177 A1552VC RS01165 WP 000422572.1 TFDQALYQLVVDDKISEQDALHSADSANDLRLMLKTKRGDDY...GSGSLQNVKID........ME..............  368
NTDB id 1203 PSJM300 01605 AFN76401.1       TFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLGSETDGEHLTSVS.QGLTLE........MSDDDPGRSFR.....  381
NTDB id 1019 ACIAD RS04205 WP 004922051.1   TFDQALFDLYDHQHISYADALKHADSPNNLRLQIKLSEEANKPLDNRERMSEMERK........MTFDGQRRNLK.....  383
consensus                                   !***  *   **  *****    *    *       *
```

logo

```
NTDB id 1307 DR RS10055 WP 010888596.1      PATPAAPAAGRSEPGRAGGFGRR   418
NTDB id 1116 NGFG RS10615 WP 003690200.1    .......................   347
NTDB id 1086 NMV RS00245 WP 002218487.1     .......................   347
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 GCO85 RS10305 WP 010947729.1   .......................   344
NTDB id 1194 PAKAF RS01995 WP 003084552.1   .......................   344
NTDB id 1202 PSJM300 01600 AFN76400.1       .......................   344
NTDB id 1020 ACIAD RS04210 WP 011182164.1   .......................   344
NTDB id 1081 FDQ49 RS05335 WP 006581387.1   .......................   345
NTDB id 1060 ABD1 RS04380 WP 000355489.1    .......................   345
NTDB id 1040 HON27 RS13360 WP 000355489.1   .......................   345
NTDB id 310495 DZA55 RS18160 WP 011407601.1 .......................   377
NTDB id 1177 A1552VC RS01165 WP 000422572.1 .......................   368
NTDB id 1203 PSJM300 01605 AFN76401.1       .......................   381
NTDB id 1019 ACIAD RS04205 WP 004922051.1   .......................   383
consensus
```

X non conserved
X similar
X ≥ 50% conserved