```
logo
NTDB id 1006245 ABHF33 RS09365 WP 348943716.1  MNAEQALKTMHDLLRMMIQHKASDLFIADDFPPALKINGKMTPVGQQKLNAVATRALAYAIMRPDQKAEFDEEFECNFAI   80
NTDB id 1177 A1552VC RS01165 WP 000422572.1    .......MELNQYLDGMLTHKASDLYITVGAPILYRVDGELRAQGEAL.SVADVTALLHAMMDDARQAEFKQTREANFAV   72
NTDB id 1203 PSJM300 01605 AFN76401.1          .......MEFEKLLRLMVEKGGSDLFITAGVPPSMKVNGKILPVNKTPMSPEMTRETVHGVMNEQQRREFTENHECNFAI   73
NTDB id 1019 ACIAD RS04205 WP 004922051.1      .......MDFNDLLNLMAKHKASDLFITAGVEPSLKINGEITPVSKTKLDGDMIAQLIDSITTQKQRQEFIETHECNFAI   73
NTDB id 1307 DR RS10055 WP 010888596.1         ...MTSGIDITDILRLAADKGASDIILAAGLPPQFKLSGDYDAQGFEPLSASDTRKLMYSMMNERQQRIFEEKRELDFSF   77
NTDB id 1194 PAKAF RS01995 WP 003084552.1      .......MDITELLAFSAKQGASDLHLSAGLPPMIRVDGDVRRINLPPLEHKQVHALIYDIMNDKQRKDFEEFLETDFSF   73
consensus                                        *** **! **     *!!********** *** !**  *    *        **  ** * ** *! *  ! *!**

logo
NTDB id 1006245 ABHF33 RS09365 WP 348943716.1  SPEG.IGRFRVNVFMQQEKVGMVLRTITSKIPNFDEMGLPKILKEVVMSKRGLVLLVGGTGSGKSTTMAAMIDYRNEHSH  159
NTDB id 1177 A1552VC RS01165 WP 000422572.1    VRD..SGRFRVSAFFQRELPGAVIRRIETRIPTFEELKLPEVLQNLAIAKRGLVLVVGATGSGKSTTMAAMTGYRNQHRT  150
NTDB id 1203 PSJM300 01605 AFN76401.1          SARG.IGRFRVSAFYQRNLAGMVLRRIETNIPTIEDLKLPDVLKKLALTKRGLVLFVGATGTGKSTSLAAMIGYRNKNSS  152
NTDB id 1019 ACIAD RS04205 WP 004922051.1      LNREKNERFRVSAFQQRDMPGMVIRRIETKIPSPDDLHLPPILKELAMSKRGIIIFSGATGTGKSTSLASMIQHRNQHSK  153
NTDB id 1307 DR RS10055 WP 010888596.1         ALGD.KARFRVNAFMQRGNVGGVMRLIPTTVRTIAEMGLPQTVIDIANAPRGLVLVTGPTGSGKSTTLASMIDHINTTKK  156
NTDB id 1194 PAKAF RS01995 WP 003084552.1      EVPG.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEELGMGEVFKRVSDVPRGLVLVTGPTGSGKSTTLAAMLDYLNNTKY  152
consensus                                        *!!!! *! !*    ! !*! ! ***** *** ** *** *** *!!**** !*!!*!!!!**!*!* **!

logo
NTDB id 1006245 ABHF33 RS09365 WP 348943716.1  GHIITIEDPVEYLHKNKNCLVTHREVGRDTKGWFAALKNTLRQAPDVILIGEIRDRETMEYAMNFAETGHLCMGTLHANS  239
NTDB id 1177 A1552VC RS01165 WP 000422572.1    GHILTVEDPIEFVHEHKRCIVTQREVGLDTESYEVALKNSLRQAPDMILIGEIRSRETMEYAMTFAETGHLCMATLHANN  230
NTDB id 1203 PSJM300 01605 AFN76401.1          GHISIEDPIEFIHQHQNCIVTQREVGIDTDSFEVALKNTLRQAPDVILIGEVRTRETMDHAVAFAETGHLCLATLHANN  232
NTDB id 1019 ACIAD RS04205 WP 004922051.1      GHIITIEDPIEFIHEHAGCIITQREVGIDTDSFEIALKNTLRQAPDVILIGEIRSREVMDYALAFAETGHLVFATLHANN  233
NTDB id 1307 DR RS10055 WP 010888596.1         LHILTIEDPIEFMHPNKASIINQREVGSDTLSFDDALRAALRQAPDVILVGEMRDYETIKAAVTAAETGHLVMGTLHTNS  236
NTDB id 1194 PAKAF RS01995 WP 003084552.1      HHILTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTTS  232
consensus                                      *!!***!!!*!**!  * ****!!!* !! *** !!***!!**!!*!!*!!*! *!*** !* *!!!!!! **!!!**

logo
NTDB id 1006245 ABHF33 RS09365 WP 348943716.1  SNQALERIVNFFPEERHPQLYMDLSLNMRGIISQRLVPTPDGKGRCAAIEILLNTPLVADMIFKGDVGGVKTAMQKSKEL  319
NTDB id 1177 A1552VC RS01165 WP 000422572.1    ANQALERILHLVPKEQREQFLLDLSLNLKGVIAQQLLRDKNGKGRHGVFEVLLNSPRIADLIRRGELHELKATMARSQEV  310
NTDB id 1203 PSJM300 01605 AFN76401.1          ANQALDRIINFFPADRQNQVWMDLSLNLKAIVAQQLVPTPDGKGRRAVIEVLINTPLAADLIRKGEVHELKGLMKRSTDL  312
NTDB id 1019 ACIAD RS04205 WP 004922051.1      ANQTLERIIHFFDADRHQQIFMDLSLNLKAVISQQLIPTHDGQSRRAAVEVLINTPLLSDYIRQGEIYKIKELMARSGEL  313
NTDB id 1307 DR RS10055 WP 010888596.1         APESIDRIVDVFPEEQQEQIRVQLANNLVAVMTQQLLPRADGQGRVLAYEILLANPAVRALIRECKTFQITSVMQTGARE  316
NTDB id 1194 PAKAF RS01995 WP 003084552.1      AAKTIDRVVDVFPAEEKAMVRSMLSESLQSVISQTLIK.KIGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSAIQTGGSL  311
consensus                                      ***  **!**  ** *   ** **!**********!*!**  *! *! ** !*****! * **!* ***  **  * ** **

logo
NTDB id 1006245 ABHF33 RS09365 WP 348943716.1  GMQTFDMALFDLYEAGKISMEEALKNADSLNELRLKIKLNSQHHRKEEHSSGLDHLSLEVHEEPEVVEEAAE.....GEK  394
NTDB id 1177 A1552VC RS01165 WP 000422572.1    GMQTFDQALYQLVVDDKISEQDALHSADSANDLRLMLKTKRGDDY...GSGSLQNVKIDME.....................  368
NTDB id 1203 PSJM300 01605 AFN76401.1          GMQTFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLGSETDGEHLTSVS.QGLTLEMSDDDPGRSFR..........  381
NTDB id 1019 ACIAD RS04205 WP 004922051.1      GMQTFDQALFDLYDHQHISYADALKHADSPNNLRLQIKLSEEANKPLDNRERMSEMERKMTFDGQRRNLK..........  383
NTDB id 1307 DR RS10055 WP 010888596.1         GMVTMDAYLAGLFRRHLITYDKGLERAIDPKEFARLANDAS.........AGLGGASMTPA.APPVPAYNSASSSSTGRG  386
NTDB id 1194 PAKAF RS01995 WP 003084552.1      GMQTLDMCLKGLVAKGLISRENAREKAKIPENF.............................................  344
consensus                                      !!*!*! *!* !*    !* ****  !** ***** **                *  * * *
```

```
logo
                                                  KE
                                                  GDFGRGAAAPATPAAPAAGRSEPGRAGGFGRR
NTDB id 1006245 ABHF33 RS09365 WP 348943716.1  KE..............................   396
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
NTDB id 1307 DR RS10055 WP 010888596.1         GDFGRGAAAPATPAAPAAGRSEPGRAGGFGRR   418
NTDB id 1194 PAKAF RS01995 WP 003084552.1      ................................   344
consensus
```

X non conserved
X similar
X ≥ 50% conserved