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NTDB id 1177 A1552VC RS01165 WP 000422572.1   ........MELNQYLDGMLTHKASDLYITVGAPILYRVDGELRAQG.EALSVADVTALLHAMMDDARQAEFKQTREANFA   71
NTDB id 202522 BKK81 RS16905 WP 071015321.1   MLDRESAAKYIHELLVLMVGNRGSDLFITADFPPAIKVDGKITPVSQQPLNVTQALGLVRAIMNERQIAEFDDSHECNFA   80
NTDB id 1203 PSJM300 01605 AFN76401.1         ........MEFEKLLRLMVEKGGSDLFITAGVPPSMKVNGKILPVNKTPMSPEMTRETVHGVMNEQQRREFTENHECNFA   72
NTDB id 1019 ACIAD RS04205 WP 004922051.1     ........MDFNDLLNLMAKHKASDLFITAGVEPSLKINGEITPVSKTKLDGDMIAQLIDSITTQKQRQEFIETHECNFA   72
NTDB id 1307 DR RS10055 WP 010888596.1        ....MTSGIDITDILRLAADKGASDIILAAGLPPQFKLSGDYDAQGFEPLSASDTRKLMYSMMNERQQRIFEEKRELDFS   76
NTDB id 1283 ACE17W RS02630 WP 010947729.1    ........MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEEFFETDFS   72
NTDB id 1259 GC085 RS10305 WP 010947729.1     ........MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEEFFETDFS   72
NTDB id 1194 PAKAF RS01995 WP 003084552.1     ........MDITELLAFSAKQGASDLHLSAGLPPMIRVDGDVRRINLPPLEHKQVHALIYDIMNDKQRKDFEEFLETDFS   72
NTDB id 1202 PSJM300 01600 AFN76400.1         ........MDITELLAFSAKQGASDLHLSSGLPPMIRVDGDVRRINLPAMDHKQVHALIYDIMNDKQRKDFEEFLETDFS   72
NTDB id 1020 ACIAD RS04210 WP 011182164.1     ........MDITELLAFSVQNRASDLHLSAGIPPMIRVDGEVRRINLPAMDHSEVHNLIYDIMNDKQRRDYEEKLETDFS   72
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     ........MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFS   72
NTDB id 1060 ABD1 RS04380 WP 000355489.1      ........MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFS   72
NTDB id 1040 HON27 RS13360 WP 000355489.1     ........MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEEKLETDFS   72
consensus                                      *** **!****** *!!*******************!******** *** **  ****************  !**!*

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NTDB id 1177 A1552VC RS01165 WP 000422572.1   VVRD..SGRFRVSAFFQRELPGAVIRRIETRIPTFEELKLPEVLQNLAIAKRGLVLVVGATGSGKSTTMAAMTGYRNQHR   149
NTDB id 202522 BKK81 RS16905 WP 071015321.1   LSVPN.AGRFRASAFIQQGKAGMVLRTINTRIPTVAELDLPATLHEIVMSKRGLVIVTGATGSGKSTTLAAMLDHRNAQS   159
NTDB id 1203 PSJM300 01605 AFN76401.1         ISARG.IGRFRVSAFYQRNLAGMVLRRIETNIPTIEDLKLPDVLKKLALTKRGLVLFVGATGTGKSTSLAAMIGYRNKNS   151
NTDB id 1019 ACIAD RS04205 WP 004922051.1     ILNREKNERFRVSAFQQRDMPGMVIRRIETKIPSPDDLHLPPILKELAMSKRGIIIFSGATGTGKSTSLASMIQHRNQHS   152
NTDB id 1307 DR RS10055 WP 010888596.1        FALGD.KARFRVNAFMQRGNVGGVMRLIPTTVRTIAEMGLPQTVIDIANAPRGLVLVTGPTGSGKSTTLASMIDHINTTK   155
NTDB id 1283 ACE17W RS02630 WP 010947729.1    FEIAN.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTTLAAVIDYINSSR   151
NTDB id 1259 GC085 RS10305 WP 010947729.1     FEIAN.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTTLAAVIDYINSSR   151
NTDB id 1194 PAKAF RS01995 WP 003084552.1     FEVPG.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEELGMGEVFKRVSDVPRGLVLVTGPTGSGKSTTLAAMLDYLNNTK   151
NTDB id 1202 PSJM300 01600 AFN76400.1         FEVPG.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGMGEVFRKITDVPRGLVLVTGPTGSGKSTTLAAMLDYLNNTK   151
NTDB id 1020 ACIAD RS04210 WP 011182164.1     FEVPN.LARFRVNVFNQNRGAGAVFRTIPSQVLTLEELGLGKIFRDICDYPRGLVLVTGPTGSGKSTTLAAMLDYINNHR   151
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     FEVPN.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENR   151
NTDB id 1060 ABD1 RS04380 WP 000355489.1      FEVPN.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENR   151
NTDB id 1040 HON27 RS13360 WP 000355489.1     FEVPN.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTTLAAMLDYINENR   151
consensus                                     ***   **!!!***!*! *****!*!*!************  *****    !!*****!*!!*!!!!**!******!  *

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NTDB id 1177 A1552VC RS01165 WP 000422572.1   TGHILTVEDPIEFVHEHKRCIVTQREVGLDTESYEVALKNSLRQAPDMILIGEIRSRETMEYAMTFAETGHLCMATLHAN   229
NTDB id 202522 BKK81 RS16905 WP 071015321.1   YGHIITIEDPIEYVHAHQNCIVTQREVGIDTESWHVALKNTLRQAPDVILIGEIRDRETMEYAMQYAETGHLCLATLHAN   239
NTDB id 1203 PSJM300 01605 AFN76401.1         SGHIISIEDPIEFIHQHQNCIVTQREVGIDTDSFEVALKNTLRQAPDVILIGEVRTRETMDHAVAFAETGHLCLATLHAN   231
NTDB id 1019 ACIAD RS04205 WP 004922051.1     KGHIITIEDPIEFIHEHAGCIITQREVGIDTDSFEIALKNTLRQAPDVILIGEIRSREVMDYALAFAETGHLVFATLHAN   232
NTDB id 1307 DR RS10055 WP 010888596.1        KLHILTIEDPIEFMHPNKASIINQREVGSDTLSFDDALRAALRQAPDVILVGEMRDYETIKAAVTAAETGHLVMGTLHTN   235
NTDB id 1283 ACE17W RS02630 WP 010947729.1    YEHILTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLAMTAAETGHLVFGTLHTN   231
NTDB id 1259 GC085 RS10305 WP 010947729.1     YEHILTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLAMTAAETGHLVFGTLHTN   231
NTDB id 1194 PAKAF RS01995 WP 003084552.1     YHHILTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTT   231
NTDB id 1202 PSJM300 01600 AFN76400.1         YHHILTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTT   231
NTDB id 1020 ACIAD RS04210 WP 011182164.1     YDHILTVEDPIEFVHEPKKCLINQREVHRDTLGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTT   231
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     YDHILTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTT   231
NTDB id 1060 ABD1 RS04380 WP 000355489.1      YDHILTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTT   231
NTDB id 1040 HON27 RS13360 WP 000355489.1     YDHILTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLALTAAETGHLVFGTLHTT   231
consensus                                     * !!***!!!!!**!  ******!!!!**!!   *  !!***!!**!!*!!*!!*!**!****!***!!!!!!***!!!*
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NTDB id 1177 A1552VC RS01165 WP 000422572.1   NANQALERILHLVPKEQREQFLLDLSLNLKGVIAQQLLRDKNGKGRHGVFEVLLNSPRIADLIRRGELHELKATMARSQE   309
NTDB id 202522 BKK81 RS16905 WP 071015321.1   NANQAIDRVVNFFPEEKRQQLLIDLSLNLKAMISQRLLPRKGRKGRVPAVEIMIGTPLVADLIFKGEIHELKEVIKKSRE   319
NTDB id 1203 PSJM300 01605 AFN76401.1         NANQALDRIINFFPADRQNQVWMDLSLNLKAIVAQQLVPTPDGKGRRAVIEVLINTPLAADLIRKGEVHELKGLMKRSTD   311
NTDB id 1019 ACIAD RS04205 WP 004922051.1     NANQTLERIIHFFDADRHQQIFMDLSLNLKAVISQQLIPTHDGQSRRAAVEVLINTPLLSDYIRQGEIYKIKELMARSGE   312
NTDB id 1307 DR RS10055 WP 010888596.1        SAPESIDRIVDVFPEEQQEQIRVQLANNLVAVMTQQLLPRADGQGRVLAYEILLANPAVRALIREGKTFQITSVMQTGAR   315
NTDB id 1283 ACE17W RS02630 WP 010947729.1    SATKTINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLK.KNKGGRVAALEIMMCTGAIRNLIREDKIAQMYSSIQTGQA   310
NTDB id 1259 GC085 RS10305 WP 010947729.1     SATKTINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLK.KNKGGRVAALEIMMCTGAIRNLIREDKIAQMYSSIQTGQA   310
NTDB id 1194 PAKAF RS01995 WP 003084552.1     SAAKTIDRVVDVFPAEEKAMVRSMLSESLQSVISQTLIK.KIGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSAIQTGGS   310
NTDB id 1202 PSJM300 01600 AFN76400.1         SAAKTIDRVVDVFPAEEKSMVRSMLSESLQAVISQTLLK.KVGGGRVAAHEIMIGTPAIRNLIREDKVAQMYSSIQTGGS   310
NTDB id 1020 ACIAD RS04210 WP 011182164.1     SAAKTIDRIIDVFPAEEKDMVRTMLSESLQAVISQTLLK.KEGGGRVAAHEIMIGIPAIRNLIREGKVAQMYSSIQTGAT   310
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     SAAKTIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLK.KNGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGAN   310
NTDB id 1060 ABD1 RS04380 WP 000355489.1      SAAKTIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLK.KNGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGAN   310
NTDB id 1040 HON27 RS13360 WP 000355489.1     SAAKTIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLK.KNGGGRVAAHEIMIGIPAIRNLIRENKVAQMYSAIQTGAN   310
consensus                                     *!  ****!**********  ***  *!***!*****!*!**  *  ***!***  !*************!**  *******  *****
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NTDB id 1177 A1552VC RS01165 WP 000422572.1   VGMQTFDQALYQLVVDDKISEQDALHSADSANDLRLMLKTKRGDDYG...SGSLQNVK....IDME..............   368
NTDB id 202522 BKK81 RS16905 WP 071015321.1   QGMISFDQALFDLYEEDKISYEDALRNADSLNDLRLMIKLHSTRNRDGDLAAGTEHLN....VI................   379
NTDB id 1203 PSJM300 01605 AFN76401.1         LGMQTFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLGSETDGEHLTSVS.QGLT....LEMSDDDPGRSFR.....   381
NTDB id 1019 ACIAD RS04205 WP 004922051.1     LGMQTFDQALFDLYDHQHISYADALKHADSPNNLRLQIKLSEEANKPLDNRERMSEME....RKMTFDGQRRNLK.....   383
NTDB id 1307 DR RS10055 WP 010888596.1        EGMVTMDAYLAGLFRRHLITYDKGLERAIDPKEFARLANDASAGLGGASMTPAAPPVPAYNSASSSSTGRGGDFGRGAAA   395
NTDB id 1283 ACE17W RS02630 WP 010947729.1    KGMQTLDQHLTELVNKNIISKHTAHEAALNKSLF.........................................   344
NTDB id 1259 GC085 RS10305 WP 010947729.1     KGMQTLDQHLTELVNKNIISKHTAHEAALNKSLF.........................................   344
NTDB id 1194 PAKAF RS01995 WP 003084552.1     LGMQTLDMCLKGLVAKGLISRENAREKAKIPENF.........................................   344
NTDB id 1202 PSJM300 01600 AFN76400.1         LGMQTLDSCLKGLLAKGLISRDSAKEKAKQPENF.........................................   344
NTDB id 1020 ACIAD RS04210 WP 011182164.1     HGMTTLDQSLKQLLAKGIINLPTARAVAKSPESF.........................................   344
NTDB id 1081 FDQ49 RS05335 WP 006581387.1     HGMTTLDQSLKGLVSRGVISPQTARTAAKQPESFL........................................   345
NTDB id 1060 ABD1 RS04380 WP 000355489.1      HGMTTLDQSLKGLVARGVISPQTARTAAKQPESFL........................................   345
NTDB id 1040 HON27 RS13360 WP 000355489.1     HGMTTLDQSLKGLVARGVISPQTARTAAKQPESFL........................................   345
consensus                                      !! **!* !  !* * *!*   *   !  *  *
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NTDB id 1177 A1552VC RS01165 WP 000422572.1   ........................   368
NTDB id 202522 BKK81 RS16905 WP 071015321.1   ........................   379
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        PATPAAPAAGRSEPGRAGGFGRR    418
NTDB id 1283 ACE17W RS02630 WP 010947729.1    ........................   344
NTDB id 1259 GC085 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
consensus
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X non conserved
X similar
X $\geq$ 50% conserved