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NTDB id 1177 A1552VC RS01165 WP 000422572.1          ..........MELNQYLDGMLTHKASDLYITVGAPILYRVDGELRAQGE.ALSVADVTALLHAMMDDARQAEFKQ   64
NTDB id 48013 NMBM04240196 RS07850 WP 002214012.1   MFTDENMTAKEELFAWLRHMNKNKGSDLFVTTHFPPAMKLDGKITRITDEPLTAEKCMEIAFSIMSAKQAEEFSS   75
NTDB id 1203 PSJM300 01605 AFN76401.1                ..........MEFEKLLRLMVEKGGSDLFITAGVPPSMKVNGKILPVNKTPMSPEMTRETVHGVMNEQQRREFTE   65
NTDB id 1019 ACIAD RS04205 WP 004922051.1            ..........MDFNDLLNLMAKHKASDLFITAGVEPSLKINGEITPVSKTKLDGDMIAQLIDSITTQKRQEFIE   65
NTDB id 1307 DR RS10055 WP 010888596.1               ......MTSGIDITDILRLAADKGASDIILAAGLPPQFKLSGDYDAQGFEPLSASDTRKLMYSMMNERQQRIFEE   69
NTDB id 1086 NMV RS00245 WP 002218487.1              ..........MQITDLLAFGAKNKASDLHLSSGISPMIRVHGDMRRINLPEMSAEEVGNMVTSVMNDHQRKIYQQ   65
NTDB id 1283 ACE17W RS02630 WP 010947729.1           ..........MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEE   65
NTDB id 1259 GCO85 RS10305 WP 010947729.1            ..........MDIAELLAFSVKNKSSDLHISAGMPPMIRVDGDLRKINLPPLEHKDVIKIIYDIMNDRQRKEYEE   65
NTDB id 1194 PAKAF RS01995 WP 003084552.1            ..........MDITELLAFSAKQGASDLHLSAGLPPMIRVDGDVRRINLPPLEHKQVHALIYDIMNDKQRKDFEE   65
NTDB id 1202 PSJM300 01600 AFN76400.1                ..........MDITELLAFSAKQGASDLHLSSGLPPMIRVDGDVRRINLPAMDHKQVHALIYDIMNDKQRKDFEE   65
NTDB id 1020 ACIAD RS04210 WP 011182164.1            ..........MDITELLAFSVQNRASDLHLSAGIPPMIRVDGEVRRINLPAMDHSEVHNLIYDIMNDKQRRDYEE   65
NTDB id 1081 FDQ49 RS05335 WP 006581387.1            ..........MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEE   65
NTDB id 1060 ABD1 RS04380 WP 000355489.1             ..........MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEE   65
NTDB id 1040 HON27 RS13360 WP 000355489.1            ..........MDITELLAFSVKNGASDLHLSAGMPPMIRVDGEVRRINLPALEHKDVHRLVYDIMNDKQRRDYEE   65
consensus                                                      ******!****** *!!*******************!******** *** **  ****************

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NTDB id 1177 A1552VC RS01165 WP 000422572.1          TREANFAVVRD..SGRFRVSAFFQRELPGAVIRRIETRIPTFEELKLPEVLQNLAIAKRGLVLVVGATGSGKSTT   137
NTDB id 48013 NMBM04240196 RS07850 WP 002214012.1   TNECNFAISLPD.TSRFRVNAMIQRGATALVFRAITSKIPKFESLNLPPVLKDVALKKRGLVIFVGGTGSGKSTS   149
NTDB id 1203 PSJM300 01605 AFN76401.1                NHECNFAISARG.IGRFRVSAFYQRNLAGMVLRRIETNIPTIEDLKLPDVLKKLALTKRGLVLFVGATGTGKSTS   139
NTDB id 1019 ACIAD RS04205 WP 004922051.1            THECNFAILNREKNERFRVSAFQQRDMPGMVIRRIETKIPSPDDLHLPPILKELAMSKRGIIIFSGATGTGKSTS   140
NTDB id 1307 DR RS10055 WP 010888596.1               KRELDFSFALGD.KARFRVNAFMQRGNVGGVMRLIPTTVRTIAEMGLPQTVIDIANAPRGLVLVTGPTGSGKSTT   143
NTDB id 1086 NMV RS00245 WP 002218487.1              NLEVDFSFELPN.VARFRVNAFNIGRGPAAVFRTIPSTVLSLEELKAPSIFQKIAESPRGMVLVTGPTGSGKSTT   139
NTDB id 1283 ACE17W RS02630 WP 010947729.1           FFETDFSFEIAN.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTT   139
NTDB id 1259 GCO85 RS10305 WP 010947729.1            FFETDFSFEIAN.LARFRVNAFNQSRGAAAVFRTIPSEILSMEDLGLPPIFKEMASFSRGLVLVTGPTGSGKSTT   139
NTDB id 1194 PAKAF RS01995 WP 003084552.1            FLETDFSFEVPG.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEELGMGEVFKRVSDVPRGLVLVTGPTGSGKSTT   139
NTDB id 1202 PSJM300 01600 AFN76400.1                FLETDFSFEVPG.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGMGEVFRKITDVPRGLVLVTGPTGSGKSTT   139
NTDB id 1020 ACIAD RS04210 WP 011182164.1            KLETDFSFEVPN.LARFRVNVFNQNRGAGAVFRTIPSQVLTLEELGLGKIFRDICDYPRGLVLVTGPTGSGKSTT   139
NTDB id 1081 FDQ49 RS05335 WP 006581387.1            KLETDFSFEVPN.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTT   139
NTDB id 1060 ABD1 RS04380 WP 000355489.1             KLETDFSFEVPN.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTT   139
NTDB id 1040 HON27 RS13360 WP 000355489.1            KLETDFSFEVPN.VARFRVNAFNQNRGAGAVFRTIPSKVLTMEDLGLGQIFKDICDYPRGIVLVTGPTGSGKSTT   139
consensus                                              !**!*****  **!!!!*****  *****!*!*!*************** ******  *!!*****!*!!*!!!!!*

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NTDB id 1177 A1552VC RS01165 WP 000422572.1          MAAMTGYRNQHRTGHILTVEDPIEFVHEHKRCIVTQREVGLDTESYEVALKNSLRQAPDMILIGEIRSRETMEYA   212
NTDB id 48013 NMBM04240196 RS07850 WP 002214012.1   LASLIDYRNENSFGHIITIEDPIEFVHEHKNCIITQREVGVDTENWMAALKNTLRQAPDVILIGEIRDRETMDYA   224
NTDB id 1203 PSJM300 01605 AFN76401.1                LAAMIGYRNKNSSGHIISIEDPIEFIHQHQNCIVTQREVGIDTDSFEVALKNTLRQAPDVILIGEVRTRETMDHA   214
NTDB id 1019 ACIAD RS04205 WP 004922051.1            LASMIQHRNQHSKGHIITIEDPIEFIHEHAGCIITQREVGIDTDSFEIALKNTLRQAPDVILIGEIRSREVMDYA   215
NTDB id 1307 DR RS10055 WP 010888596.1               LASMIDHINTTKKLHILTIEDPIEFMHPNKASIINQREVGSDTLSFDDALRAALRQAPDVILVGEMRDYETIKAA   218
NTDB id 1086 NMV RS00245 WP 002218487.1              LAAMINYINETQPAHILTIEDPIEFVHQSKKSLINQRELHQHTLSFANALRSALREDPDVILVGEMRDPETIGLA   214
NTDB id 1283 ACE17W RS02630 WP 010947729.1           LAAVIDYINSSRYEHILTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLA   214
NTDB id 1259 GCO85 RS10305 WP 010947729.1            LAAVIDYINSSRYEHILTVEDPIEFVHQSKKCLVNQREVHKDTLSFNAALRSALREDPDIILVGELRDLETIRLA   214
NTDB id 1194 PAKAF RS01995 WP 003084552.1            LAAMLDYLNNTKYHHILTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLA   214
NTDB id 1202 PSJM300 01600 AFN76400.1                LAAMLDYLNNTKYHHILTIEDPIEFVHESKKCLVNQREVHRDTLGFSEALRSALREDPDIILVGEMRDLETIRLA   214
NTDB id 1020 ACIAD RS04210 WP 011182164.1            LAAMLDYINNHRYDHILTVEDPIEFVHEPKKCLINQREVHRDTLGFNEALRSALREDPDIILVGEMRDLETIRLA   214
NTDB id 1081 FDQ49 RS05335 WP 006581387.1            LAAMLDYINENRYDHILTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLA   214
NTDB id 1060 ABD1 RS04380 WP 000355489.1             LAAMLDYINENRYDHILTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLA   214
NTDB id 1040 HON27 RS13360 WP 000355489.1            LAAMLDYINENRYDHILTVEDPIEFVHQSKKCLINQREVHRDTHGFNEALRSALREDPDIILVGEMRDLETIRLA   214
consensus                                            *!******!  ** !!***!!!!!!*! *******!!!****!   *  !!***!!**!!*!!*!!*!**!****!
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NTDB id 1177 A1552VC RS01165 WP 000422572.1          MTFAETGHLCMATLHANNANQALERILHLVPKEQREQFLLDLSLNLKGVIAQQLLRDKNGKGRHGVFEVLLNSPR   287
NTDB id 48013 NMBM04240196 RS07850 WP 002214012.1   IAFAETGHLCMATLHANSTNQALDRIINFFPEERREQLLTDLSLNLQAFISQRLVPRDGGKGRVAAVEVLLNSPL   299
NTDB id 1203 PSJM300 01605 AFN76401.1                VAFAETGHLCLATLHANNANQALDRIINFFPADRQNQVWMDLSLNLKAIVAQQLVPTPDGKGRRAVIEVLINTPL   289
NTDB id 1019 ACIAD RS04205 WP 004922051.1           LAFAETGHLVFATLHANNANQTLERIIHFFDADRHQQIFMDLSLNLKAVISQQLIPTHDGQSRRAAVEVLINTPL   290
NTDB id 1307 DR RS10055 WP 010888596.1               VTAAETGHLVMGTLHTNSAPESIDRIVDVFPEEQQEQIRVQLANNLVAVMTQQLLPRADGQGRVLAYEILLANPA   293
NTDB id 1086 NMV RS00245 WP 002218487.1              LTAAETGHLVFGTLHTTGAAKTVDRIVDVFPAGEKEMVRSMLSESLTAVISQNLLKTHDGNGRVASHEILIANPA   289
NTDB id 1283 ACE17W RS02630 WP 010947729.1           MTAAETGHLVFGTLHTNSATKTINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLKK.NKGGRVAALEIMMCTGA   288
NTDB id 1259 GCO85 RS10305 WP 010947729.1            MTAAETGHLVFGTLHTNSATKTINRIIDVFPAEEKSMVRSMLSESLQAVVAQSLLKK.NKGGRVAALEIMMCTGA   288
NTDB id 1194 PAKAF RS01995 WP 003084552.1            LTAAETGHLVFGTLHTTSAAKTIDRVVDVFPAEEKAMVRSMLSESLQSVISQTLIKK.IGGGRVAAHEIMIGTPA   288
NTDB id 1202 PSJM300 01600 AFN76400.1                LTAAETGHLVFGTLHTTSAAKTIDRVVDVFPAEEKSMVRSMLSESLQAVISQTLLKK.VGGGRVAAHEIMIGTPA   288
NTDB id 1020 ACIAD RS04210 WP 011182164.1            LTAAETGHLVFGTLHTTSAAKTIDRIIDVFPAEEKDMVRTMLSESLQAVISQTLLKK.EGGGRVAAHEIMIGIPA   288
NTDB id 1081 FDQ49 RS05335 WP 006581387.1            LTAAETGHLVFGTLHTTSAAKTIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPA   288
NTDB id 1060 ABD1 RS04380 WP 000355489.1             LTAAETGHLVFGTLHTTSAAKTIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPA   288
NTDB id 1040 HON27 RS13360 WP 000355489.1            LTAAETGHLVFGTLHTTSAAKTIDRVIDVFPAEEKDMVRAMLSESLQAVISQTLLKK.NGGGRVAAHEIMIGIPA   288
consensus                                            ***!!!!!!***!!!* ** ****!*************** *!***!*****!*!***   ***!***  !*******

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NTDB id 1177 A1552VC RS01165 WP 000422572.1          IADLIRRGELHELKATMARSQEVGMQTFDQALYQLVVDDKISEQDALHSADSANDLRLMLKTKRGDDYGS.....   357
NTDB id 48013 NMBM04240196 RS07850 WP 002214012.1   ISELIHNGNIHEIKEVMKKSTTLGMQTFDQHLYQLYEKGDISLQEALKNADSAHDLRLAVQLRSRRAQSSS....   370
NTDB id 1203 PSJM300 01605 AFN76401.1                AADLIRKGEVHELKGLMKRSTDLGMQTFDQALYNLYVQGEITYEDALLHADSSNDLRLMIKLGSETDGEHL....   360
NTDB id 1019 ACIAD RS04205 WP 004922051.1            LSDYIRQGEIYKIKELMARSGELGMQTFDQALFDLYDHQHISYADALKHADSPNNLRLQIKLSEEANKPLD....   361
NTDB id 1307 DR RS10055 WP 010888596.1               VRALIREGKTFQITSVMQTGAREGMVTMDAYLAGLFRRHLITYDKGLERAIDPKEFARLANDASAGLGGASMTPA   368
NTDB id 1086 NMV RS00245 WP 002218487.1              VRNLIRENKITQINSVLQTGQASGMQTMDQSLQSLVRQGLIAPEVARRRAQNSESMSF.................   347
NTDB id 1283 ACE17W RS02630 WP 010947729.1           IRNLIREDKIAQMYSSIQTGQAKGMQTLDQHLTELVNKNIISKHTAHEAALNKSLF....................   344
NTDB id 1259 GCO85 RS10305 WP 010947729.1            IRNLIREDKIAQMYSSIQTGQAKGMQTLDQHLTELVNKNIISKHTAHEAALNKSLF....................   344
NTDB id 1194 PAKAF RS01995 WP 003084552.1            IRNLIREDKVAQMYSAIQTGGSLGMQTLDMCLKGLVAKGLISRENAREKAKIPENF....................   344
NTDB id 1202 PSJM300 01600 AFN76400.1                IRNLIREDKVAQMYSSIQTGGSLGMQTLDSCLKGLLAKGLISRDSAKEKAKQPENF....................   344
NTDB id 1020 ACIAD RS04210 WP 011182164.1            IRNLIREGKVAQMYSSIQTGATHGMTTLDQSLKQLLAKGIINLPTARAVAKSPESF....................   344
NTDB id 1081 FDQ49 RS05335 WP 006581387.1            IRNLIRENKVAQMYSAIQTGANHGMTTLDQSLKGLVSRGVISPQTARTAAKQPESFL...................   345
NTDB id 1060 ABD1 RS04380 WP 000355489.1             IRNLIRENKVAQMYSAIQTGANHGMTTLDQSLKGLVARGVISPQTARTAAKQPESFL...................   345
NTDB id 1040 HON27 RS13360 WP 000355489.1            IRNLIRENKVAQMYSAIQTGANHGMTTLDQSLKGLVARGVISPQTARTAAKQPESFL...................   345
consensus                                            ****!** ******* *****  !!*!*!* !  !* ***!*   *   !  *  *

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NTDB id 1177 A1552VC RS01165 WP 000422572.1          ...GSLQNVKIDME.............................................   368
NTDB id 48013 NMBM04240196 RS07850 WP 002214012.1   .PDLELL....................................................   376
NTDB id 1203 PSJM300 01605 AFN76401.1                .TSVS.QGLTLEMSDDDPGRSFR....................................   381
NTDB id 1019 ACIAD RS04205 WP 004922051.1            .NRERMSEMERKMTFDGQRRNLK....................................   383
NTDB id 1307 DR RS10055 WP 010888596.1               APPVPAYNS.ASSSSTGRGGDFGRGAAAPATPAAPAAGRSEPGRAGGFGRR          418
NTDB id 1086 NMV RS00245 WP 002218487.1              ..........................................................   347
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
consensus
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X non conserved
X similar
X $\geq$ 50% conserved