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logo
NTDB id 85 BSU 00860 NP 387967.1          ..MMFGRFTERAQKVLALAQEEALRLGHNNIGTEHILLGLVREGEGIAAKALQALGLGSEKIQKEVESLIGRGQ........EMS   75
NTDB id 610 V4T04 RS10165 WP 012897346.1  MKFENIKYTPTLDRILEKAEEYAHQYQYGTIESAHLLAAMATTSGSIAYSLLAGMNVDSSDLLIDL........EDLSSHVKVKR   77
NTDB id 287 SP RS11210 WP 001109712.1     .....MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLEE.....VALELTETDYSQDETF   75
NTDB id 290 KZH43 RS10025 WP 001109677.1  .....MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLEE.....VALELTETDYSQDETF   75
NTDB id 289 SPD RS10700 WP 001109677.1    .....MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLEE.....VALELTETDYSQDETF   75
NTDB id 329 STU RS10020 WP 011225298.1    ....MTIYSRKMQAIFHRAQLEAERFESPFLETWHVLLAMVEVPGSVAYLTFTDFEDRIHSEEIETAAVLAMEKRPKDLSESDII   81
NTDB id 297 STER RS00545 WP 011680614.1   ....MTIYSRKMQAIFHRAQLEAERFESPFLETWHVLLAMVEVTGSVAYLTFTDFEDRIHSEEIETAAVLAMEKRPKDLSESDII   81
NTDB id 120962 DK93 RS07740 WP 038431661.1 ....MIMYSTKMQDIFRQAQFQAARFDSHCLETWHVLLAMVAVDNSLANMILSEYDAQVAIEEYEAAAILAMGKPPKEQL..SRV   79
NTDB id 377 SMU RS09275 WP 002262344.1    ....MTDYSLKMQEVFRLAQFEAARFESSYLESWHVLLAMVEIDSSVAGLSFAEFEADVRFEDYQAAAILAIGKKPKSSS..NDI   79
consensus                                     * *********  !** !***   *****!*!****  * **!* ** **  **  ** *   *****    * *  *

logo
NTDB id 85 BSU 00860 NP 387967.1          QTIHYTPRAKKVIELSMDEARKLGHSYVGTEHILLGLIREGEGVAARVLNNLGVSLNKARQQVLQLLGSNET.....G.......  148
NTDB id 610 V4T04 RS10165 WP 012897346.1  STLRFSPRAEEVMTAASFLAIHNNSEAVGTEHLLYALLQVEDGFGLQLLKL..........QKINIVSLRKELEKRTGLKVPESK  152
NTDB id 287 SP RS11210 WP 001109712.1     TELPFSRRLQVLFDEAEYVASVVHAKVLGTEHVLYAILHDSNALATRILERAGFSYEDKKDQ.VKIAALRRNLEERAGWTREDLK  159
NTDB id 290 KZH43 RS10025 WP 001109677.1  TELPFSRRLQILFDEAEYVASVVHAKVLGTEHVLYAILHDGNALATRILERAGFSYEDKKDQ.VKIAALRRNLEERAGWTREDLK  159
NTDB id 289 SPD RS10700 WP 001109677.1    TELPFSRRLQILFDEAEYVASVVHAKVLGTEHVLYAILHDGNALATRILERAGFSYEDKKDQ.VKIAALRRNLEERAGWTREDLK  159
NTDB id 329 STU RS10020 WP 011225298.1    DLRAQSPALEAMLQEAQGIASVTGAVEVGSEHVLMAFLLHKDLMVCRLLEVAGFQYKDDSDK.PRIIDLRRSLERNAGLSKQDLK  165
NTDB id 297 STER RS00545 WP 011680614.1   DLRAQSPALEAMLQEAQEIASVTGAVEVGSEHVLMAFLLHKDLMVCRLLEVAGFQYKDDSDK.PRIIDLRRSLERNAGLSKQDLK  165
NTDB id 120962 DK93 RS07740 WP 038431661.1 GFRPQSKTLTNLLAFAQAISQITRDQEVGSEHVLFAILLNPDIMASRLLEIAGYQIKDNGNGQPRLADLRKAIERHAGYSKEMIK  164
NTDB id 377 SMU RS09275 WP 002262344.1    MLLEQSHALKRTLAEAAAISQVTHAKEVGTEHVLFAMLLNPNLLATRILELVGFHAKDDGES.IRLLDLRKVIERYAGFSKEDIK  163
consensus                                  * ** **  ** **  ****  *  *!*!!*!****   *******!***** * *  ** **** *** *** *!*******

logo
NTDB id 85 BSU 00860 NP 387967.1          ................SSAAGTNSNANTPTLDSLARDLTAIAKEDSLDPVIGRSKEIQRVIEVLSRRTKNNPVLIGEPGVGKTA  216
NTDB id 610 V4T04 RS10165 WP 012897346.1  KAVTPMSKRKMAKGV........AENSTTPTLDSVSSDLTEEARLGKLDPMIGREAEIDRLIHILSRRTKNNPVLVGEPGVGKSA  229
NTDB id 287 SP RS11210 WP 001109712.1     .ALRQRHRT.VADKQNSMANMMGMPQTPSGGLEDYTHDLTEQARSGKLEPVIGRDKEISRMIQILSRKTKNNPVLVGDAGVGKTA  242
NTDB id 290 KZH43 RS10025 WP 001109677.1  .ALRQRHRT.VADKQNSMANMMGMPQTPSGGLEDYTHDLTEQARSGKLEPVIGRDKEISRMIQILSRKTKNNPVLVGDAGVGKTA  242
NTDB id 289 SPD RS10700 WP 001109677.1    .ALRQRHRT.VADKQNSMANMMGMPQTPSGGLEDYTHDLTEQARSGKLEPVIGRDKEISRMIQILSRKTKNNPVLVGDAGVGKTA  242
NTDB id 329 STU RS10020 WP 011225298.1    .AIHDLRKPKKSKASANFANMMQPPQSSTGELADYTKDLTALAESGNLDPIIGRDEEISRMIQVLSRKTKNNPVLVGEAGVGKTA  249
NTDB id 297 STER RS00545 WP 011680614.1   .AIHDLRKPKKSKASANFANMMQPPQSSTGELADYTKDLTALAESGNLDPVIGRDEEISRMIQVLSRKTKNNPVLVGEAGVGKTA  249
NTDB id 120962 DK93 RS07740 WP 038431661.1 .AIHELRKPKKTKTQGTFSDMMKPP.STAGELSDFTRDLTEMARQGLLESVIGRDQEVSRMIQVLSRKTKNNPVLVGDAGVGKTA  247
NTDB id 377 SMU RS09275 WP 002262344.1    .AIFEMRKPKKVKNSSSFSDLMKPP.SVTGELADFTRDLTELARQGRLEPVIGREQEISRMVQILSRKTKNNPVLVGDAGVGKTA  246
consensus                                 **  * * *  *   * ****  *** ** !*****!!!**!****!***!!!* !**!****!!!*!!!!!!!*!**!!!!*!

logo
NTDB id 85 BSU 00860 NP 387967.1          IAEGLAQQIINNEVPEILRDKRVMTLDMGTVVAGTKYRGEFEDRLKKVMDEIRQAGNIILFIDELHTLIGAGG.AEGAIDASNIL  300
NTDB id 610 V4T04 RS10165 WP 012897346.1  IIEGLAQRIVNGQVPIGLMNSRIMALNMATVVAGTKFRGEFEDRLTAIVEEVSSDPDVIFIDELHTIIGAGGGMDSVNDAANIL  314
NTDB id 287 SP RS11210 WP 001109712.1     LALGLAQRIASGDVPAEMAKMRVLELDLMNVVAGTRFRGDFEERMNNIIKDIEEDGQVILFIDELHTIMGSGSGIDSTLDAANIL  327
NTDB id 290 KZH43 RS10025 WP 001109677.1  LALGLAQRIASGDVPAEMAKMRVLELDLMNVVAGTRFRGDFEERMNNIIKDIEEDGQVILFIDELHTIMGSGSGIDSTLDAANIL  327
NTDB id 289 SPD RS10700 WP 001109677.1    LALGLAQRIASGDVPAEMAKMRVLELDLMNVVAGTRFRGDFEERMNNIIKDIEEDGQVILFIDELHTIMGSGSGIDSTLDAANIL  327
NTDB id 329 STU RS10020 WP 011225298.1    LALGLAQRIASGEVPFELADMRILELDMMSVVAGTRFRGDFEERMNQIIDEIEADGKIILFIDELHTIIGSGSGIDSTLDAANIL  334
NTDB id 297 STER RS00545 WP 011680614.1   LALGLAQRIASGEVPFELADMRILELDMMSVVAGTRFRGDFEERMNQIIDEIEADGKIILFIDELHTIIGSGSGIDSTLDAANIL  334
NTDB id 120962 DK93 RS07740 WP 038431661.1 LAYGLAQRIANGAIPYELKEMRVLELDMMSVVAGTRFRGDFEERMNQIIDDIEADGQIILFVDELHTIMGSGSGIDSTLDAANIL  332
NTDB id 377 SMU RS09275 WP 002262344.1    LAYGLAQRIVDSAVPFELADMKVLELDMMSVVAGTRFRGDFEERMNQIIADIEADGHIVLFIDELHTIMGSGSGIDSTLDAANIL  331
consensus                                 ***!!!!*!*****!  *********!****!!!!!**!!*!!*!********* ******!*!!!!!**!*!*******!!*!!!
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logo
NTDB id 85 BSU 00860 NP 387967.1          KPSLARGELQCIGATTLDEYRKYIEKDAALERRFQPIQVDQPSVDESIQILQGLRDRYEAHHRVSITDDAIEAAVKLSDRYISDR   385
NTDB id 610 V4T04 RS10165 WP 012897346.1  KPALARGDFQMVGATTYHEYQKYIEKDEALERRLARINVDEPSPDEAIAILQGLREKFEDYHQVKFTDQAIKSAVMLSVRYMTSR   399
NTDB id 287 SP RS11210 WP 001109712.1     KPALARGTLRTVGATTQEEYQKHIEKDAALSRRFAKVTIEEPSVADSMTILQGLKATYEKHHRVQITDEAVETAVKMAHRYLTSR   412
NTDB id 290 KZH43 RS10025 WP 001109677.1  KPALARGTLRTVGATTQEEYQKHIEKDAALSRRFAKVTIEEPSVADSMTILQGLKATYEKHHRVQITDEAVETAVKMAHRYLTSR   412
NTDB id 289 SPD RS10700 WP 001109677.1    KPALARGTLRTVGATTQEEYQKHIEKDAALSRRFAKVTIEEPSVADSMTILQGLKATYEKHHRVQITDEAVETAVKMAHRYLTSR   412
NTDB id 329 STU RS10020 WP 011225298.1    KPALARGTLHMVGATTQAEYQKHIEKDAALSRRFAKITIEEPSVSEAIDILNGLRSSYEDYHRVTITDAAVETAVKAAHRYLTSK   419
NTDB id 297 STER RS00545 WP 011680614.1   KPALARGTLHMVGATTQAEYQKHIEKDAALSRRFAKITIEEPSVSEAIDILNGLRSSYEDYHRVTITDAAVETAVKAAHRYLTSK   419
NTDB id 120962 DK93 RS07740 WP 038431661.1 KPALSRGTLHMVGATTQEEYQKHIEKDAALSRRFAKILIEEPNTEDAYQILMGLKLSYETYHNVSISNEAVKTAVKMAHRYLTSK   417
NTDB id 377 SMU RS09275 WP 002262344.1    KPALARGSLRTIGATTQEEYQKHIEKDAALSRRFAKVTIEEPSEEEAYQILLGLKKSYETYHHVIISDAAVMAAVKGAHRYLSGK   416
consensus                                 !!*!*!!**  *!!!!**!!*!*!!!!*!!*!!********!** *** !!*!!* **! *!*! ****!***!!****!!****

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NTDB id 85 BSU 00860 NP 387967.1          FLPDKAIDLIDEAGSKVRLRSFTTPPNLKELEQKLDEVRKEKDAAVQSQEFEKAASLRDTEQRLREQVEDTKKSWKEKQGQENSE   470
NTDB id 610 V4T04 RS10165 WP 012897346.1  KLPDKAIDLLDEAAAVKISVKNQQTKRLDLEKELAEAQEELSEAVIKLDIKASRTKEKAVEKIADKIYKF.....SVKEDKRQE   479
NTDB id 287 SP RS11210 WP 001109712.1     HLPDSAIDLLDEAATVQNKAKHVKADDSDL........SPADKALMDGKWKQAAQLIAK.........EE.....EVPVY.KDL   474
NTDB id 290 KZH43 RS10025 WP 001109677.1  HLPDSAIDLLDEAATVQNKAKHVKADDSDL........SPADKALMDGKWKQAAQLIAK.........EE.....EVPVY.KDL   474
NTDB id 289 SPD RS10700 WP 001109677.1    HLPDSAIDLLDEAATVQNKAKHVKADDSDL........SPADKALMDGKWKQAAQLIAK.........EE.....EVPVY.KDL   474
NTDB id 329 STU RS10020 WP 011225298.1    NLPDSAIDLLDEASATVQVRIKK..EAKREI........TPLDEALISGDIGAAVKQYKA.........NQ.....KAKFPKPAL   480
NTDB id 297 STER RS00545 WP 011680614.1   NLPDSAIDLLDEASATVQVRIKK..EDKREI........TPLDEALISGDIGAAVKQYKA.........NQ.....KAKFPKPAL   480
NTDB id 120962 DK93 RS07740 WP 038431661.1 NLPDSAIDLLDEASAAVQNMVKK..SAPETL........TPIDQALINGDMKKVSRLLAK.........EA.....KGQMRKPTP   478
NTDB id 377 SMU RS09275 WP 002262344.1    NLPDSAIDLLDEASATVQGLVKK..KAPAYL........TDLDHALITNDYQLAKRLLKK.........EK.....KPLLKKRAE   477
consensus                                  !!!*!!!!*!!!***!* ***       **        **** !** **** *  ** *          *         * ** *

logo
NTDB id 85 BSU 00860 NP 387967.1          VTVDDIAMVVSSWTGVPVSKIAQTETDKLLNMENILHSRVIGQDEAVVAVAKAVRRARAGLKDPKRPIGSFIFLGPTGVGKTELA   555
NTDB id 610 V4T04 RS10165 WP 012897346.1  VTDQAVVAVASTLTGVPITQMTKSESDRLINLEKELHKRVVGQEEAISAVSRAIRRARSGVADSRRPMGSFMFLGPTGVGKTELA   564
NTDB id 287 SP RS11210 WP 001109712.1     VTESDILTTLSRLSGIPVQKLTQTDAKKYLNLEAELHKRVIGQDQAVSSISRAIRRNQSGIRSHKRPIGSFMFLGPTGVGKTELA   559
NTDB id 290 KZH43 RS10025 WP 001109677.1  VTESDILTTLSRLSGIPVQKLTQTDAKKYLNLEAELHKRVIGQDQAVSSISRAIRRNQSGIRSHKRPIGSFMFLGPTGVGKTELA   559
NTDB id 289 SPD RS10700 WP 001109677.1    VTESDILTTLSRLSGIPVQKLTQTDAKKYLNLEAELHKRVIGQDQAVSSISRAIRRNQSGIRSHKRPIGSFMFLGPTGVGKTELA   559
NTDB id 329 STU RS10020 WP 011225298.1    VDADQIMQTLSRLSGIPVEKMTQTDSKRYLNLESELHKRVIGQDEAVSAISRAIRRNQSGIRTGKRPIGSFMFLGPTGVGKTELA   565
NTDB id 297 STER RS00545 WP 011680614.1   VDADQIMQTLSRLSGIPVEKMTQTDSKRYLNLESELHKRVIGQDEAVSAISRAIRRNQSGIRTGKRPIGSFMFLGPTGVGKTELA   565
NTDB id 120962 DK93 RS07740 WP 038431661.1 VTEDDILATLSKLSGIPLEKLTQADSKKYLNLEKELHKRVIGQDAAVTAISRAIRRNQSGIRTGKRPIGSFMFLGPTGVGKTELA   563
NTDB id 377 SMU RS09275 WP 002262344.1    VKEEDILATLSKLSGIPVKKLTQADSKKYLNLEREIHKRVIGQDDAVSSISRAIRRNQSGIRVGKRPIGSFMFLGPTGVGKTELA   562
consensus                                 !****** **!***!*!* ***********!*! *!!*!!*!!**!******!*!!***!*** *!!*!!!*!!!!!!!!!!!!!!

logo
NTDB id 85 BSU 00860 NP 387967.1          RALAESIFGDEESMIRIDMSEYMEKHSTSRLVGSPPGYVGYDEGGQLTEKVRRKPYSVVLLDEIEKAHPDVFNILLQVLEDGRLT   640
NTDB id 610 V4T04 RS10165 WP 012897346.1  KALADSVFGSEDNMIRVDMSEFMEKHSTSRLIGAPPGYVGYDEGGQLTERVRNKPYSVVLLDEVEKAHPDVFNIMLQILDDGFVT   649
NTDB id 287 SP RS11210 WP 001109712.1     KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGVLT   644
NTDB id 290 KZH43 RS10025 WP 001109677.1  KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGVLT   644
NTDB id 289 SPD RS10700 WP 001109677.1    KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGVLT   644
NTDB id 329 STU RS10020 WP 011225298.1    KALAEVLFDDESALLRFDMSEYMEKFAASRLNGAPPGYVGYDEGGELTEKVRNKPYSVLLFDEIEKAHPDIFNVLLQVLDDGVLT   650
NTDB id 297 STER RS00545 WP 011680614.1   KALAEVLFDDESALLRFDMSEYMEKFAASRLNGAPPGYVGYDEGGELTEKVRNKPYSVLLFDEIEKAHPDIFNILLQVLDDGVLT   650
NTDB id 120962 DK93 RS07740 WP 038431661.1 KALAEVLFDDEAALIRFDMSEYMEKFAASRLNGAPPGYVGYDEGGELTQKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGILT   648
NTDB id 377 SMU RS09275 WP 002262344.1    KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNILLQVLDDGVLT   647
consensus                                 *!!!***!**!****!*!!!!*!!!***!!!*!*!!!!!!!*!!!*!!**!!*!!!!!*!*!!*!!!!!!*!!*!*!!*!*!!**!
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logo
NTDB id 85 BSU 00860 NP 387967.1          DSKGRTVDFRNTILIMTSNVGASELKRNKYVGFNVQDETQNHKDMKDKVMGELKRAFRPEFINRIDEIIVFHSLEKKHLTEIVSL   725
NTDB id 610 V4T04 RS10165 WP 012897346.1  DTKGRKVDFRNTIIIMTSNLGATALRDDKTVGFGAKNITADYSAMKSRILEELKRHYRPEFLNRIDENIVFHSLESQEIEQIVKI   734
NTDB id 287 SP RS11210 WP 001109712.1     DSKGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVFHSLSSDHMQEVVKI   729
NTDB id 290 KZH43 RS10025 WP 001109677.1  DSKGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVFHSLSSDHMQEVVKI   729
NTDB id 289 SPD RS10700 WP 001109677.1    DSKGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVFHSLSSDHMQEVVKI   729
NTDB id 329 STU RS10020 WP 011225298.1    DSRGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAQTISHNHQAMQARIMEELKKSYRPEFINRIDEKVVFHSLEEEQLHDIVKI   735
NTDB id 297 STER RS00545 WP 011680614.1   DSRGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAQTISHNHQAMQARIMEELKKSYRPEFINRIDEKVVFHSLEEEQLHDIVKI   735
NTDB id 120962 DK93 RS07740 WP 038431661.1 DSRGRKVDFSNTIIIMTSNLGATALRDDKTVGFGVKDIHQDHQAMEKRILEELRKTYRPEFINRIDEKVVFHSLTQDNMRDVVKI   733
NTDB id 377 SMU RS09275 WP 002262344.1    DSRGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKSFSQDYKAMESRILEELKKVYRPEFINRIDEKVVFHNLGQEDIRHIVKI   732
consensus                                 !**!!*!!!*!!!*!!!!!*!!**!***!*!!!****** *  *!* ****!!** *!!!!*!!!!!**!!!*!   * * **!**

logo
NTDB id 85 BSU 00860 NP 387967.1          MSDQLTKRLKEQDLSIELTDAAKAKVAEEGVDLEYGARPLRRAIQKHVEDRLSEELLRGNIHKGQHIVLDVEDGEFVVKTTAKTN   810
NTDB id 610 V4T04 RS10165 WP 012897346.1  MSKSLIKRLAEQDIHVKLTPSAVKLIAEVGFDPEYGARPLRKALQKEVEDLLSEQLLSGEIKAGNHVSIGASNKKIKIAQIV...   816
NTDB id 287 SP RS11210 WP 001109712.1     MVKPLVASLTEKGIDLKLQASALKLLANQGYDPEMGARPLRRTLQTEVEDKLAELLLKGDLVAGSTLKIGVKAGQLKFDIA....   810
NTDB id 290 KZH43 RS10025 WP 001109677.1  MVKPLVASLAEKGIDLKLQASALKLLANQGYDPEMGARPLRRTLQTEVEDKLAELLLKGDLVAGSILKIGVKAGQLKFDIA....   810
NTDB id 289 SPD RS10700 WP 001109677.1    MVKPLVASLAEKGIDLKLQASALKLLANQGYDPEMGARPLRRTLQTEVEDKLAELLLKGDLVAGSILKIGVKAGQLKFDIA....   810
NTDB id 329 STU RS10020 WP 011225298.1    MVKPLISALADKGISLKFQPAALKHLAKDGYDIEMGARPLRRTIQTQVEDKLSELLLGGQVVSGQTLKIGCSKDKLTFTVV....   816
NTDB id 297 STER RS00545 WP 011680614.1   MVKPLISALADKGISLKFQPAALKHLAKDGYDIEMGARPLRRTIQTQVEDKLSELLLGGQVVSGQTLKIGCSKDKLTFTVV....   816
NTDB id 120962 DK93 RS07740 WP 038431661.1 MVQPLITTLAEKGITLKIQPLALKHLSEVGYDEHMGARPLRRTLQTEIEDKLSELILSRELTSGHTLKIGLSYGKLTFHIA....   814
NTDB id 377 SMU RS09275 WP 002262344.1    MVAPLIAHLADQGITLKFQPSALKHLALAGYDAEMGARPLRRTLQTEVEDKLAELILSGKLASGQTLKIGIQKEKLKFDIV....   813
consensus                                 !***!*  !*****************!** **  !*! **!!!!!!***!***!!*!*!**! **** !*******  ***** *
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X non conserved

X similar

X $\geq$ 50% conserved