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logo
NTDB id 85 BSU 00860 NP 387967.1          ..MMFGRFTERAQKVLALAQEEALRLGHNNIGTEHILLGLVREGEGIAAKALQALGLGSEKIQKEVESLIGRGQ........EMS   75
NTDB id 610 V4T04 RS10165 WP 012897346.1  MKFENIKYTPTLDRILEKAEEYAHQYQYGTIESAHLLAAMATTSGSIAYSLLAGMNVDSSDLLIDLED........LSSHVKVKR   77
NTDB id 290 KZH43 RS10025 WP 001109677.1  .....MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLEE.....VALELTETDYSQDETF   75
NTDB id 289 SPD RS10700 WP 001109677.1    .....MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLEE.....VALELTETDYSQDETF   75
NTDB id 287 SP RS11210 WP 001109712.1     .....MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLEE.....VALELTETDYSQDETF   75
NTDB id 297 STER RS00545 WP 011680614.1   ....MTIYSRKMQAIFHRAQLEAERFESPFLETWHVLLAMVEVTGSVAYLTFTDFEDRIHSEEIETAAVLAMEKRPKDLSESDII   81
NTDB id 329 STU RS10020 WP 011225298.1    ....MTIYSRKMQAIFHRAQLEAERFESPFLETWHVLLAMVEVPGSVAYLTFTDFEDRIHSEEIETAAVLAMEKRPKDLSESDII   81
NTDB id 64577 SPB RS10500 WP 003102418.1  ....MIDYSIKMQEIFKQAQYQAARFGSSHLETWHILLAMVKEEGSLAGLVFSEFNNKISEEEYEAAAILAVGKSPQDDIK..EV   79
NTDB id 377 SMU RS09275 WP 002262344.1    ....MTDYSLKMQEVFRLAQFEAARFESSYLESWHVLLAMVEIDSSVAGLSFAEFEADVRFEDYQAAAILAIGKKPKSSSN..DI   79
consensus                                     * *********  !** !****  *****!*!****  * **!* ** **  **  ** *   *****    * *  *

logo
NTDB id 85 BSU 00860 NP 387967.1          QTIHYTPRAKKVIELSMDEARKLGHSYVGTEHILLGLIREGEGVAARVLNNLGVSLNKARQQVLQLLGSNE.....TG.......   148
NTDB id 610 V4T04 RS10165 WP 012897346.1  STLRFSPRAEEVMTAASFLAIHNNSEAVGTEHLLYALLQVEDGFGLQLLKLQ.........KINIVSLRKELEKRTGLKVPESK   152
NTDB id 290 KZH43 RS10025 WP 001109677.1  TELPFSRRLQILFDEAEYVASVVHAKVLGTEHVLYAILHDGNALATRILERAGFSYEDKKD.QVKIAALRRNLEERAGWTREDL.   158
NTDB id 289 SPD RS10700 WP 001109677.1    TELPFSRRLQILFDEAEYVASVVHAKVLGTEHVLYAILHDGNALATRILERAGFSYEDKKD.QVKIAALRRNLEERAGWTREDL.   158
NTDB id 287 SP RS11210 WP 001109712.1     TELPFSRRLQVLFDEAEYVASVVHAKVLGTEHVLYAILHDSNALATRILERAGFSYEDKKD.QVKIAALRRNLEERAGWTREDL.   158
NTDB id 297 STER RS00545 WP 011680614.1   DLRAQSPALEAMLQEAQEIASVTGAVEVGSEHVLMAFLLHKDLMVCRLLEVAGFQYKDDSD.KPRIIDLRRSLERNAGLSKQDL.   164
NTDB id 329 STU RS10020 WP 011225298.1    DLRAQSPALEAMLQEAQGIASVTGAVEVGSEHVLMAFLLHKDLMVCRLLEVAGFQYKDDSD.KPRIIDLRRSLERNAGLSKQDL.   164
NTDB id 64577 SPB RS10500 WP 003102418.1  HFLGQSKTLTNILKFSEMISLVTNASEVGSEHVLFAILLNPDIMAARLLEMAGFKIKDDGQGQPKLADLRKAIEIQAAYSKETI.   163
NTDB id 377 SMU RS09275 WP 002262344.1    MLLEQSHALKRTLAEAAAISQVTHAKEVGTEHVLFAMLLNPNLLATRILELVGFHAKDDGESI.RLLDLRKVIERYAGFSKEDI.   162
consensus                                   * ** **  ** **  ****  *  *!*!!*!****   **** **!***** * *  *  **** *** **  ********

logo
NTDB id 85 BSU 00860 NP 387967.1          .........SSAAG........TNSNANTPTLDSLARDLTAIAKEDSLDPVIGRSKEIQRVIEVLSRRTKNNPVLIGEPGVGKTA   216
NTDB id 610 V4T04 RS10165 WP 012897346.1  KAVTPMSKRKMAKGVA........ENSTTPTLDSVSSDLTEEARLGKLDPMIGREAEIDRLIHILSRRTKNNPVLVGEPGVGKSA   229
NTDB id 290 KZH43 RS10025 WP 001109677.1  KALRQRHRT.VADKQNSMANMMGMPQTPSGGLEDYTHDLTEQARSGKLEPVIGRDKEISRMIQILSRKTKNNPVLVGDAGVGKTA   242
NTDB id 289 SPD RS10700 WP 001109677.1    KALRQRHRT.VADKQNSMANMMGMPQTPSGGLEDYTHDLTEQARSGKLEPVIGRDKEISRMIQILSRKTKNNPVLVGDAGVGKTA   242
NTDB id 287 SP RS11210 WP 001109712.1     KALRQRHRT.VADKQNSMANMMGMPQTPSGGLEDYTHDLTEQARSGKLEPVIGRDKEISRMIQILSRKTKNNPVLVGDAGVGKTA   242
NTDB id 297 STER RS00545 WP 011680614.1   KAIHDLRKPKKSKASANFANMMQPPQSSTGELADYTKDLTALAESGNLDPVIGRDEEISRMIQVLSRKTKNNPVLVGEAGVGKTA   249
NTDB id 329 STU RS10020 WP 011225298.1    KAIHDLRKPKKSKASANFANMMQPPQSSTGELADYTKDLTALAESGNLDPIIGRDEEISRMIQVLSRKTKNNPVLVGEAGVGKTA   249
NTDB id 64577 SPB RS10500 WP 003102418.1  KAIHELRKPKKAKGAGSFSDMMKPA.STAGDLSDFTRDLTEMANQGLLEPVIGRDKEITRMIQVLSRKTKNNPVLVGDAGVGKTA   247
NTDB id 377 SMU RS09275 WP 002262344.1    KAIFEMRKPKKVKNSSSFSDLMKPP.SVTGELADFTRDLTELARQGRLEPVIGREQEISRMVQILSRKTKNNPVLVGDAGVGKTA   246
consensus                                 ***  * * * ***  * ****  *** ** !*****!!!**!****!*!*!!!**!!*!****!!!*!!!!!!!*!**!!!!*!

logo
NTDB id 85 BSU 00860 NP 387967.1          IAEGLAQQIINNEVPEILRDKRVMTLDMGTVVAGTKYRGEFEDRLKKVMDEIRQAGNIILFIDELHTLIGAGG.AEGAIDASNIL   300
NTDB id 610 V4T04 RS10165 WP 012897346.1  IIEGLAQRIVNGQVPIGLMNSRIMALNMATVVAGTKFRGEFEDRLTAIVEEVSSDPDVIIFIDELHTIIGAGGGMDSVNDAANIL   314
NTDB id 290 KZH43 RS10025 WP 001109677.1  LALGLAQRIASGDVPAEMAKMRVLELDLMNVVAGTRFRGDFEERMNNIIKDIEEDGQVILFIDELHTIMGSGSGIDSTLDAANIL   327
NTDB id 289 SPD RS10700 WP 001109677.1    LALGLAQRIASGDVPAEMAKMRVLELDLMNVVAGTRFRGDFEERMNNIIKDIEEDGQVILFIDELHTIMGSGSGIDSTLDAANIL   327
NTDB id 287 SP RS11210 WP 001109712.1     LALGLAQRIASGDVPAEMAKMRVLELDLMNVVAGTRFRGDFEERMNNIIKDIEEDGQVILFIDELHTIMGSGSGIDSTLDAANIL   327
NTDB id 297 STER RS00545 WP 011680614.1   LALGLAQRIASGEVPFELADMRILELDMMSVVAGTRFRGDFEERMNQIIDEIEADGKIILFIDELHTIIGSGSGIDSTLDAANIL   334
NTDB id 329 STU RS10020 WP 011225298.1    LALGLAQRIASGEVPFELADMRILELDMMSVVAGTRFRGDFEERMNQIIDEIEADGKIILFIDELHTIIGSGSGIDSTLDAANIL   334
NTDB id 64577 SPB RS10500 WP 003102418.1  LAYGLAQRIANGSIPYELQDMRVLELDMMSVVAGTRFRGDFEERMNQIIDDIETDGQIILFVDELHTIMGSGSGIDSTLDAANIL   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 290 KZH43 RS10025 WP 001109677.1  KPALARGTLRTVGATTQEEYQKHIEKDAALSRRFAKVTIEEPSVADSMTILQGLKATYEKHHRVQITDEAVETAVKMAHRYLTSR   412
NTDB id 289 SPD RS10700 WP 001109677.1    KPALARGTLRTVGATTQEEYQKHIEKDAALSRRFAKVTIEEPSVADSMTILQGLKATYEKHHRVQITDEAVETAVKMAHRYLTSR   412
NTDB id 287 SP RS11210 WP 001109712.1     KPALARGTLRTVGATTQEEYQKHIEKDAALSRRFAKVTIEEPSVADSMTILQGLKATYEKHHRVQITDEAVETAVKMAHRYLTSR   412
NTDB id 297 STER RS00545 WP 011680614.1   KPALARGTLHMVGATTQAEYQKHIEKDAALSRRFAKITIEEPSVSEAIDILNGLRSSYEDYHRVTITDAAVETAVKAAHRYLTSK   419
NTDB id 329 STU RS10020 WP 011225298.1    KPALARGTLHMVGATTQAEYQKHIEKDAALSRRFAKITIEEPSVSEAIDILNGLRSSYEDYHRVTITDAAVETAVKAAHRYLTSK   419
NTDB id 64577 SPB RS10500 WP 003102418.1  KPALSRGTLHMVGATTQEEYQKHIEKDAALSRRFAKVLIEEPNLEDAYQILLGLKGSYERFHNVSISDQAVKTAVKVAHRYLTSK   417
NTDB id 377 SMU RS09275 WP 002262344.1    KPALARGSLRTIGATTQEEYQKHIEKDAALSRRFAKVTIEEPSEEEAYQILLGLKKSYETYHHVIISDAAVMAAVKGAHRYLSGK   416
consensus                                 !!*!*!!**  *!!!!**!!*!*!!!!*!!*!!********!** *** !!*!!* **! *!*! **! !***!!****!!****

logo
NTDB id 85 BSU 00860 NP 387967.1          FLPDKAIDLIDEAGSKVRLRSFTTPPNLKELEQKLDEVRKEKDAAVQSQEFEKAASLRDTEQRLREQVEDTKKSWKEKQGQENSE   470
NTDB id 610 V4T04 RS10165 WP 012897346.1  KLPDKAIDLLDEAAAAVKISVKNQQTKRLDLEKELAEAQEELSEAVIKLDIKASRTKEKAVEKIADKIYK.....FSVKEDKRQE   479
NTDB id 290 KZH43 RS10025 WP 001109677.1  HLPDSAIDLLDEAAATVQNKAKHVKADDSDLS........PADKALMDGKWKQAAQLIAK.........E.....EEV.PVYKDL   474
NTDB id 289 SPD RS10700 WP 001109677.1    HLPDSAIDLLDEAAATVQNKAKHVKADDSDLS........PADKALMDGKWKQAAQLIAK.........E.....EEV.PVYKDL   474
NTDB id 287 SP RS11210 WP 001109712.1     HLPDSAIDLLDEAAATVQNKAKHVKADDSDLS........PADKALMDGKWKQAAQLIAK.........E.....EEV.PVYKDL   474
NTDB id 297 STER RS00545 WP 011680614.1   NLPDSAIDLLDEASATVQVRIKK..EDKREIT........PLDEALISGDIGAAVKQYKA.........N.....QKAKFPKPAL   480
NTDB id 329 STU RS10020 WP 011225298.1    NLPDSAIDLLDEASATVQVRIKK..EAKREIT........PLDEALISGDIGAAVKQYKA.........N.....QKAKFPKPAL   480
NTDB id 64577 SPB RS10500 WP 003102418.1 NLPDSAIDLLDEASATVQGLVKK..EKASILT........PIDQAILEKDFKTVSKLLKA.........Q.....VNNKSAKPTL   478
NTDB id 377 SMU RS09275 WP 002262344.1    NLPDSAIDLLDEASATVQGLVKK..KAPAYLT........DLDHALITNDYQLAKRLLKK.........E.....KKPLLKKRAE   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 290 KZH43 RS10025 WP 001109677.1  VTESDILTTLSRLSGIPVQKLTQTDAKKYLNLEAELHKRVIGQDQAVSSISRAIRRNQSGIRSHKRPIGSFMFLGPTGVGKTELA   559
NTDB id 289 SPD RS10700 WP 001109677.1    VTESDILTTLSRLSGIPVQKLTQTDAKKYLNLEAELHKRVIGQDQAVSSISRAIRRNQSGIRSHKRPIGSFMFLGPTGVGKTELA   559
NTDB id 287 SP RS11210 WP 001109712.1     VTESDILTTLSRLSGIPVQKLTQTDAKKYLNLEAELHKRVIGQDQAVSSISRAIRRNQSGIRSHKRPIGSFMFLGPTGVGKTELA   559
NTDB id 297 STER RS00545 WP 011680614.1   VDADQIMQTLSRLSGIPVEKMTQTDSKRYLNLESELHKRVIGQDEAVSAISRAIRRNQSGIRTGKRPIGSFMFLGPTGVGKTELA   565
NTDB id 329 STU RS10020 WP 011225298.1    VDADQIMQTLSRLSGIPVEKMTQTDSKRYLNLESELHKRVIGQDEAVSAISRAIRRNQSGIRTGKRPIGSFMFLGPTGVGKTELA   565
NTDB id 64577 SPB RS10500 WP 003102418.1 VTEDNIMSTLSKLSGIPVEKLTQADSKKYLNLEKELHKRVIGQEDAVSAISRAIRRNQSGIRTGRRPIGSFMFLGPTGVGKTELA   563
NTDB id 377 SMU RS09275 WP 002262344.1    VKEEDILATLSKLSGIPVKKLTQADSKKYLNLERELHKRVIGQDDAVSSISRAIRRNQSGIRVGKRPIGSFMFLGPTGVGKTELA   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 290 KZH43 RS10025 WP 001109677.1  KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGVLT   644
NTDB id 289 SPD RS10700 WP 001109677.1    KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGVLT   644
NTDB id 287 SP RS11210 WP 001109712.1     KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGVLT   644
NTDB id 297 STER RS00545 WP 011680614.1   KALAEVLFDDESALLRFDMSEYMEKFAASRLNGAPPGYVGYDEGGELTEKVRNKPYSVLLFDEIEKAHPDIFNILLQVLDDGVLT   650
NTDB id 329 STU RS10020 WP 011225298.1    KALAEVLFDDESALLRFDMSEYMEKFAASRLNGAPPGYVGYDEGGELTEKVRNKPYSVLLFDEIEKAHPDIFNVLLQVLDDGVLT   650
NTDB id 64577 SPB RS10500 WP 003102418.1 KALAEVLFDDESALIRFDMSEYMEKFAASRLNGAPPGYVGYEEGGELTEKVRNKPYSVLLFDEVEKAHPDIFNVLLQVLDDGMLT   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 290 KZH43 RS10025 WP 001109677.1 DSKGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVFHSLSSDHMQEVVKI   729
NTDB id 289 SPD RS10700 WP 001109677.1  DSKGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVFHSLSSDHMQEVVKI   729
NTDB id 287 SP RS11210 WP 001109712.1   DSKGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAKDIRFDQENMEKRMFEELKKAYRPEFINRIDEKVVFHSLSSDHMQEVVKI   729
NTDB id 297 STER RS00545 WP 011680614.1 DSRGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAQTISHNHQAMQARIMEELKKSYRPEFINRIDEKVVFHSLEEEQLHDIVKI   735
NTDB id 329 STU RS10020 WP 011225298.1  DSRGRKVDFSNTIIIMTSNLGATALRDDKTVGFGAQTISHNHQAMQARIMEELKKSYRPEFINRIDEKVVFHSLEEEQLHDIVKI   735
NTDB id 64577 SPB RS10500 WP 003102418.1 DSRGRRVDFSNTIIIMTSNLGATALRDDKTVGFGAKDISQDHQAMEKRILEELKKSYRPEFINRIDEKVVFHSLSQEDMKEVVMI   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 290 KZH43 RS10025 WP 001109677.1 MVKPLVASLAEKGIDLKLQASALKLLANQGYDPEMGARPLRRTLQTEVEDKLAELLLKGDLVAGSILKIGVKAGQLKFDIA....   810
NTDB id 289 SPD RS10700 WP 001109677.1  MVKPLVASLAEKGIDLKLQASALKLLANQGYDPEMGARPLRRTLQTEVEDKLAELLLKGDLVAGSILKIGVKAGQLKFDIA....   810
NTDB id 287 SP RS11210 WP 001109712.1   MVKPLVASLTEKGIDLKLQASALKLLANQGYDPEMGARPLRRTLQTEVEDKLAELLLKGDLVAGSTLKIGVKAGQLKFDIA....   810
NTDB id 297 STER RS00545 WP 011680614.1 MVKPLISALADKGISLKFQPAALKHLAKDGYDIEMGARPLRRTIQTQVEDKLSELLLGGQVVSGQTLKIGCSKDKLTFTVV....   816
NTDB id 329 STU RS10020 WP 011225298.1  MVKPLISALADKGISLKFQPAALKHLAKDGYDIEMGARPLRRTIQTQVEDKLSELLLGGQVVSGQTLKIGCSKDKLTFTVV....   816
NTDB id 64577 SPB RS10500 WP 003102418.1 MVKPLVTNLAEKGVSLKIQPSALNYLSEEGYDVEMGARPLRRTIQTHIEDKLSELILSGDLSSGHQLKIGMSHGKLKFDIE....   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