```
logo
```

```
NTDB id 617 LCA RS06480 WP 011375001.1       .MSTEEKLTTLLKHCAKQRVQDLYFTPTIGGWRLTERRQSDLVTNQELDKPTGTRYLNRLKYMAGMDISETRRAQTGRSELQLAD   84
NTDB id 586 KW2 RS10855 WP 011836048.1       ..MVQKKAQELIQKAIEMEASDIYLIASGNLYKIYIRQQLGRTLIEEVNQEIGLALLTHFKFLAGMNTGERRRVQLGACWYELEG   83
NTDB id 114066 T303 RS00265 WP 022096896.1  ..MVTEFAKEMIKNADSCGAQDIYVIPRQDNYELYMRVGQERRLIDVYRPDFMASLIGHFKFVAGMMVGEKRRSQLGSCDYDCGD   83
NTDB id 584 DLJ51 RS00890 WP 019777327.1    MVEVQELGKELIRQAVEEQAQDIYLLPKPAVYKIYLRFGEKRHLIQTCPPEQAAGLISHFKFLAGMNVGEKRRAQLGACDYAFAD   85
NTDB id 385 SMU RS09035 WP 002263435.1      ..MVQKLGRKIIAEAVQNKAQDIYIIPKKESYELYMRIGNERRFIDVYDHHFMANLISHFKFVAGMNVGEKRRSQLGSCDYSYDE   83
NTDB id 394 FSA28 RS09405 WP 002291652.1    ..MVQKLGRKIIAEAVQNKAQDIYIIPKKESYELYMRIGNERRFIDVYDHHFMANLISHFKFVAGMNVGEKRRSQLGSCDYSYDE   83
NTDB id 429 SGO RS09420 WP 012130942.1      ..MVQKIAQAIVRQAKEECAQDIYFVPKDDCYELYMRIGDERRFIQTYDFDQLAAVISHFKFLAGMNVGEKRRSQLGSCDYRYDD   83
NTDB id 500 SM12261 RS00945 WP 000249545.1  ..MVQEIAQEIIRSARKKGAQDIYFVPKLDAYELHMRVGDERCKIGCYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYEYDQ   83
NTDB id 270 KZH43 RS09265 WP 000249564.1    ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH   83
NTDB id 229 SPD RS09895 WP 000249564.1      ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH   83
NTDB id 195 SPR RS09430 WP 000249564.1      ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH   83
NTDB id 160 SP RS10380 WP 000249564.1       ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCDYAYDH   83
consensus                                    ********** *    **!*!**** * *** *!*****  *  ** *  *******!**!!!***!*!!*!*!**** **
```

```
logo
```

```
NTDB id 617 LCA RS06480 WP 011375001.1       .QTIYLRLATVGDFLNRESLVIRFIYPIGAIYHCDDQQILAQLTQMSRQSGLILFAGPTGSGKTTSLYHLAQQSMSAKMVVAIED   168
NTDB id 586 KW2 RS10855 WP 011836048.1       SSAKRLRLSTVGDFEGNESLVIRLLHDQKQELEFWFD.DK..LQDFRCKRGLYLFAGPVGSGKTSLMFDLAHRHFSNAQVITIEE   165
NTDB id 114066 T303 RS00265 WP 022096896.1  GHLVSLRLSTVGDYRGLESLVIRILHSERRELVYWNQ.GIQPIKDALDYRGLYLFAGPVGSGKTTLMHELVQERFKGQQVISIED   167
NTDB id 584 DLJ51 RS00890 WP 019777327.1    GETAALRLSTVGDYQGRESLVIRLLFDRKRELKFWFD.GLNALLPKIIGRGLYLFSGPVGSGKTTLMYELVSRKYPDSQIITIED   169
NTDB id 385 SMU RS09035 WP 002263435.1      GKVISLRLSSVGDYRGYESLVIRLLFSGRHDLKFWFN.SMDLILNEIKGRGLYLFSGPVGSGKTSLMYQLVKLRFETKQVITIED   167
NTDB id 394 FSA28 RS09405 WP 002291652.1    GKVISLRLSSVGDYRGYESLVIRLLFSGRHDLKFWFN.SMDLILNEIKGRGLYLFSGPVGSGKTSLMYQLVKLRFETKQVITIED   167
NTDB id 429 SGO RS09420 WP 012130942.1      .KETSIRLSTVGDYRGYESLVIRLLHDEETELKFWFT.HFPELREKFKDRGLYLFSGPVGSGKTTLMHQLAQLKFKGQQVMSIED   166
NTDB id 500 SM12261 RS00945 WP 000249545.1  .KMASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQ.DIEELGKQYRQRGLYLFAGPVGSGKTTLMHELAKSLFKGQQVMSIED   166
NTDB id 270 KZH43 RS09265 WP 000249564.1    .KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQ.DIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFKGQQVMSIED   166
NTDB id 229 SPD RS09895 WP 000249564.1      .KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQ.DIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFKGQQVMSIED   166
NTDB id 195 SPR RS09430 WP 000249564.1      .KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQ.DIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFKGQQVMSIED   166
NTDB id 160 SP RS10380 WP 000249564.1       .KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQ.DIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFKGQQVMSIED   166
consensus                                    ** **!!**!!!*** !!!!!!*****  ** ****  ** *    * *!!*!!*!!*!!!!!*****! *  ********!!*
```

```
logo
```

```
NTDB id 617 LCA RS06480 WP 011375001.1       PIEIVAPEFLQLQVNDNAGLSYAELLKISLRLRPDTLIIGEIRDLETAQYVVSAALSGHLVLSTIHARSTQGVVARLLDLGISEL   253
NTDB id 586 KW2 RS10855 WP 011836048.1       PVELIDSDFIQLQVNDVIGNSYDELIKLSLRHRPDLLIVGEIRDQQTARAVLRASLTGYTVFSTIHAASVKGVVQRLLELGLSDW   250
NTDB id 114066 T303 RS00265 WP 022096896.1  PVEIKQDNVLQLQVNQAIDMTYDSLIKLSLRHRPDVLIIGEIRDKETARAVIRASLTGVTVLSTIHAKSIAGVYERLLDLGVDKS   252
NTDB id 584 DLJ51 RS00890 WP 019777327.1    PVEIKQDNMLQLQLNPSIGMTYDHLIKLSLRHRPDVLIIGEIRDRETAQAVIRASLTGIRVFSTVHAKSIPGVYARILELGVSQD   254
NTDB id 385 SMU RS09035 WP 002263435.1      PVEIKQDNMLQLQLNESIDMTYDNLIKLSLRHRPDILIIGEIRDKETARAVIRASLTGAMVFSTIHAKSIPGVYARMLELGTSSE   252
NTDB id 394 FSA28 RS09405 WP 002291652.1    PVEIKQDNMLQLQLNESIDMTYDNLIKLSLRHRPDILIIGEIRDKETARAVIRASLTGAMVFSTIHAKSIPGVYARMLELGTSSE   252
NTDB id 429 SGO RS09420 WP 012130942.1      PVEIKQEDMLQLQLNETIGLTYESLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIPGVYERLLELGVSEE   251
NTDB id 500 SM12261 RS00945 WP 000249545.1  PVEIKQDNMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIRGVYERLLELGVSEE   251
NTDB id 270 KZH43 RS09265 WP 000249564.1    PVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIRGVYERLLELGVSEE   251
NTDB id 229 SPD RS09895 WP 000249564.1      PVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIRGVYERLLELGVSEE   251
NTDB id 195 SPR RS09430 WP 000249564.1      PVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIRGVYERLLELGVSEE   251
NTDB id 160 SP RS10380 WP 000249564.1       PVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIRGVYERLLELGVSEE   251
consensus                                   !*!*******!!!*!* ****!**!*!*!!!*!!!*!!*!!!!!  *!!**!**!*!*!**!*!!*!!*!* !!**!*!*!!****
```

```
logo
NTDB id 617 LCA RS06480 WP 011375001.1        QLRACLTGIAYQSLVTKDDVVQAH...YELLTGSDYFSKKE....GGCDV.........................   296
NTDB id 586 KW2 RS10855 WP 011836048.1        ELKNGLEAVVYQRLIAGKGVLDIAKSKFDTWSPKKWNEKIENLYANGHLTAIEAEREKISINQASKIDTTDGESFE   326
NTDB id 114066 T303 RS00265 WP 022096896.1    ELDNALQGIAYMRLIKGGGVIDFARENFQNHSSTNWNQQLEGLVKQGCLTERDIQGEKIKD...............   313
NTDB id 584 DLJ51 RS00890 WP 019777327.1      ELDNCLAGIAYQRLIGGGGLIDFAQDHFQNHQAECWNEKIDQLLAAGHLTEEEAAAEKIKD...............   315
NTDB id 385 SMU RS09035 WP 002263435.1        ELQNALRGIVYQRLIGGGGIIDFAKGDYQNHSAKKWNKQIYDLFTAGYITEGEAQAEEIED...............   313
NTDB id 394 FSA28 RS09405 WP 002291652.1      ELQNALCGIVYQRLIGGGGIIDFAKGDYQNHSAKKWNKQIYDLFTAGYITEGEAQAEEIED...............   313
NTDB id 429 SGO RS09420 WP 012130942.1        ELKIVLQGICYQRLIGGGGVIDFASDNYQEHEPTVWNQQIDQLLAAGHIHPEQAEAEKIRNQQAKTSY........   319
NTDB id 500 SM12261 RS00945 WP 000249545.1    ELAVVLQGVCYQRLIGGGGIVDFANKDYQEHQSTSWNAQIDQLLKDGHITSLQAETEKISYS...............   313
NTDB id 270 KZH43 RS09265 WP 000249564.1      ELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS...............   313
NTDB id 229 SPD RS09895 WP 000249564.1        ELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS...............   313
NTDB id 195 SPR RS09430 WP 000249564.1        ELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS...............   313
NTDB id 160 SP RS10380 WP 000249564.1         ELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS...............   313
consensus                                     *!    !*** !**!**********  *** * * *** ******  !***   ** ***
```

X non conserved

X similar

X ≥ 50% conserved