```
logo
NTDB id 996290 LLNCDO184 RS11620 WP 031561106.1  ..MIPKMAKELIQRAIDRDASDIYLIASKEKYKLYFRQMTARDLVEEIGLEVGLALLTHFKFLAGMNTGERRRVQLGACW   78
NTDB id 586 KW2 RS10855 WP 011836048.1           ..MVQKKAQELIQKAIEMEASDIYLIASGNLYKIYIRQQLGRTLIEEVNQEIGLALLTHFKFLAGMNTGERRRVQLGACW   78
NTDB id 584 DLJ51 RS00890 WP 019777327.1         MVEVQELGKELIRQAVEEQAQDIYLLPKPAVYKIYLRFGEKRHLIQTCPPEQAAGLISHFKFLAGMNVGEKRRAQLGACD   80
NTDB id 394 FSA28 RS09405 WP 002291652.1         ..MVQKLGRKIIAEAVQNKAQDIYIIPKKESYELYMRIGNERRFIDVYDHHFMANLISHFKFVAGMNVGEKRRSQLGSCD   78
NTDB id 385 SMU RS09035 WP 002263435.1           ..MVQKLGRKIIAEAVQNKAQDIYIIPKKESYELYMRIGNERRFIDVYDHHFMANLISHFKFVAGMNVGEKRRSQLGSCD   78
NTDB id 429 SGO RS09420 WP 012130942.1           ..MVQKIAQAIVRQAKEECAQDIYFVPKDDCYELYMRIGDERRFIQTYDFDQLAAVISHFKFLAGMNVGEKRRSQLGSCD   78
NTDB id 500 SM12261 RS00945 WP 000249545.1       ..MVQEIAQEIIRSARKKGAQDIYFVPKLDAYELHMRVGDERCKIGCYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCD   78
NTDB id 270 KZH43 RS09265 WP 000249564.1         ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCD   78
NTDB id 229 SPD RS09895 WP 000249564.1           ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCD   78
NTDB id 195 SPR RS09430 WP 000249564.1           ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCD   78
NTDB id 160 SP RS10380 WP 000249564.1            ..MVQEIAQEIIRSARKKGTQDIYFVPKLDAYELHMRVGDERCKIGSYDFEKFAAVISHFKFVAGMNVGEKRRSQLGSCD   78
consensus                                          ********** !* * **!!!**** * !****!****!  * *****  *****!!!!*!!!!*!!*!!*!!!*!*

logo
NTDB id 996290 LLNCDO184 RS11620 WP 031561106.1  YEIEESNAKRLRLSTVGDFEGNESLVIRLLHDQNKELDFWFDEE..LENYDCKRGLHLFAGPVGSGKTSLMFDLARRHFT  156
NTDB id 586 KW2 RS10855 WP 011836048.1           YELEGSSAKRLRLSTVGDFEGNESLVIRLLHDQKQELEFWFDDK..LQDFRCKRGLYLFAGPVGSGKTSLMFDLAHRHFS  156
NTDB id 584 DLJ51 RS00890 WP 019777327.1         YAFADGETAALRLSTVGDYQGRESLVIRLLFDRKRELKFWFDGLNALLPKIIGRGLYLFSGPVGSGKTTLMYELVSRKYP  160
NTDB id 394 FSA28 RS09405 WP 002291652.1         YSYDEGKVISLRLSSVGDYRGYESLVIRLLFSGRHDLKFWFNSMDLILNEIKGRGLYLFSGPVGSGKTSLMYQLVKLRFE  158
NTDB id 385 SMU RS09035 WP 002263435.1           YSYDEGKVISLRLSSVGDYRGYESLVIRLLFSGRHDLKFWFNSMDLILNEIKGRGLYLFSGPVGSGKTSLMYQLVKLRFE  158
NTDB id 429 SGO RS09420 WP 012130942.1           YRYDD.KETSIRLSTVGDYRGYESLVIRLLHDEETELKFWFTHFPELREKFKDRGLYLFSGPVGSGKTTLMHQLAQLKFK  157
NTDB id 500 SM12261 RS00945 WP 000249545.1       YEYDQ.KMASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQDIEELGKQYRQRGLYLFAGPVGSGKTTLMHELAKSLFK  157
NTDB id 270 KZH43 RS09265 WP 000249564.1         YAYDH.KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQDIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFK  157
NTDB id 229 SPD RS09895 WP 000249564.1           YAYDH.KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQDIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFK  157
NTDB id 195 SPR RS09430 WP 000249564.1           YAYDH.KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQDIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFK  157
NTDB id 160 SP RS10380 WP 000249564.1            YAYDH.KIASLRLSTVGDYRGHESLVIRLLHDEEQDLHFWFQDIEELGKQYRQRGLYLFAGPVGSGKTTLMHELSKSLFK  157
consensus                                        ! **  ****!!!*!!!**! !!!!!!!!******! !!!******   **  !!!*!!*!!!!!!!!*!!**!  *  **

logo
NTDB id 996290 LLNCDO184 RS11620 WP 031561106.1  DLQVITIEEPVELIDSDFIQLQVNEVIGNSYDELIKLSLRHRPDLLIVGEIRDKLTAQAVLRASLTGYTVFSTVHASSVR  236
NTDB id 586 KW2 RS10855 WP 011836048.1           NAQVITIEEPVELIDSDFIQLQVNDVIGNSYDELIKLSLRHRPDLLIVGEIRDQQTARAVLRASLTGYTVFSTIHAASVK  236
NTDB id 584 DLJ51 RS00890 WP 019777327.1         DSQIITIEDPVEIKQDNMLQLQLNPSIGMTYDHLIKLSLRHRPDVLIIGEIRDRETAQAVIRASLTGIRVFSTVHAKSIP  240
NTDB id 394 FSA28 RS09405 WP 002291652.1         TKQVITIEDPVEIKQDNMLQLQLNESIDMTYDNLIKLSLRHRPDILIIGEIRDKETARAVIRASLTGAMVFSTIHAKSIP  238
NTDB id 385 SMU RS09035 WP 002263435.1           TKQVITIEDPVEIKQDNMLQLQLNESIDMTYDNLIKLSLRHRPDILIIGEIRDKETARAVIRASLTGAMVFSTIHAKSIP  238
NTDB id 429 SGO RS09420 WP 012130942.1           GQQVMSIEDPVEIKQEDMLQLQLNETIGLTYESLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIP  237
NTDB id 500 SM12261 RS00945 WP 000249545.1       GQQVMSIEDPVEIKQDNMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIR  237
NTDB id 270 KZH43 RS09265 WP 000249564.1         GQQVMSIEDPVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIR  237
NTDB id 229 SPD RS09895 WP 000249564.1           GQQVMSIEDPVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIR  237
NTDB id 195 SPR RS09430 WP 000249564.1           GQQVMSIEDPVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIR  237
NTDB id 160 SP RS10380 WP 000249564.1            GQQVMSIEDPVEIKQDDMLQLQLNEAIGLTYENLIKLSLRHRPDLLIIGEIRDSETARAVVRASLTGATVFSTIHAKSIR  237
consensus                                        **!***!!*!!!*******!!!*!* !***!**!!!!!!!!!!!!*!!*!!!!!**!!*!!*!!!!!!**!!!!*!!*!**
```

```
logo
NTDB id 996290 LLNCDO184 RS11620 WP 031561106.1  GVIQRLSELGLSHWEIKNALSSVVYQRLIAGKGVLDIAKNEFESWSSENWNKKIDQLLTNGYLTPTEAKREKIKTD....  312
NTDB id 586 KW2 RS10855 WP 011836048.1           GVVQRLLELGLSDWELKNGLEAVVYQRLIAGKGVLDIAKSKFDTWSPKKWNEKIENLYANGHLTAIEAERREKISINQASK  316
NTDB id 584 DLJ51 RS00890 WP 019777327.1         GVYARILELGVSQDELDNCLAGIAYQRLIGGGGLIDFAQDHFQNHQAECWNEKIDQLLAAGHLTEEEAAAEKIKD.....  315
NTDB id 394 FSA28 RS09405 WP 002291652.1         GVYARMLELGTSSEELQNALCGIVYQRLIGGGGIIDFAKGDYQNHSAKKWNKQIYDLFTAGYITEGEAQAEEIED.....  313
NTDB id 385 SMU RS09035 WP 002263435.1           GVYARMLELGTSSEELQNALRGIVYQRLIGGGGIIDFAKGDYQNHSAKKWNKQIYDLFTAGYITEGEAQAEEIED.....  313
NTDB id 429 SGO RS09420 WP 012130942.1           GVYERLLELGVSEEELKIVLQGICYQRLIGGGGVIDFASDNYQEHEPTVWNQQIDQLLAAGHIHPEQAEAEKIRNQQAKT  317
NTDB id 500 SM12261 RS00945 WP 000249545.1       GVYERLLELGVSEEELAVVLQGVCYQRLIGGGGIVDFANKDYQEHQSTSWNAQIDQLLKDGHITSLQAETEKISYS....  313
NTDB id 270 KZH43 RS09265 WP 000249564.1         GVYERLLELGVSEEELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS....  313
NTDB id 229 SPD RS09895 WP 000249564.1           GVYERLLELGVSEEELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS....  313
NTDB id 195 SPR RS09430 WP 000249564.1           GVYERLLELGVSEEELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS....  313
NTDB id 160 SP RS10380 WP 000249564.1            GVYERLLELGVSEEELAVVLQGVCYQRLIGGGGIVDFASRDYQEHQAAKWNEQIDQLLKDGHITSLQAETEKISYS....  313
consensus                                        !!**!**!!!*!**!* **!****!!!!!*!*!**!*!  ******* *!!**!**!*  !*** **!* !*!*

logo
NTDB id 996290 LLNCDO184 RS11620 WP 031561106.1  ..........  312
NTDB id 586 KW2 RS10855 WP 011836048.1           IDTTDGESFE  326
NTDB id 584 DLJ51 RS00890 WP 019777327.1         ..........  315
NTDB id 394 FSA28 RS09405 WP 002291652.1         ..........  313
NTDB id 385 SMU RS09035 WP 002263435.1           ..........  313
NTDB id 429 SGO RS09420 WP 012130942.1           SY........  319
NTDB id 500 SM12261 RS00945 WP 000249545.1       ..........  313
NTDB id 270 KZH43 RS09265 WP 000249564.1         ..........  313
NTDB id 229 SPD RS09895 WP 000249564.1           ..........  313
NTDB id 195 SPR RS09430 WP 000249564.1           ..........  313
NTDB id 160 SP RS10380 WP 000249564.1            ..........  313
consensus
```

X non conserved

X similar

X $\geq$ 50% conserved