

|           |         |                                |                                                                                                                 |    |
|-----------|---------|--------------------------------|-----------------------------------------------------------------------------------------------------------------|----|
| NTDB id   | 1323    | RAOC RS07335 WP 004916218.1    | .MLVKKVYGS <del>A</del> IHHGVS <del>A</del> QTTITIEVNVDQGV.GYHLVLGLPDNATIKESSHRISAAIKNVGYKLPGKKITINMAPADLRKEGSA | 78 |
| NTDB id   | 1271    | LPP RS03220 WP 011213198.1     | MSLAFTKTRSTIGTIVAQPVSVEVHLSNGLPSTFMVGLAETAVKESKDRVRSAIINSQFEFPCRKITVNLGPANLPKTGSG                               | 80 |
| NTDB id   | 1248    | GC085 RS03150 WP 011213198.1   | MSLAFTKTRSTIGTIVAQPVSVEVHLSNGLPSTFMVGLAETAVKESKDRVRSAIINSQFEFPCRKITVNLGPANLPKTGSG                               | 80 |
| NTDB id   | 1082461 | ACK2VP RS00120 WP 046274875.1  | MSLSIVHTRAALGVNAPAITITIEVHLSNGLPGLTMVGLPETVKEARDVRSAIINSGYEFPAKKITINLAPADLPKEGGR                                | 80 |
| NTDB id   | 1153    | A1552VC RS00115 WP 000521788.1 | MGLAIITHSRASIGVGQAPPVTVEVHLSNGMPGFTLVGLPETTVKESRDRVRSAIINSRFEPFAKRITVNLAPADLPKEGGR                              | 80 |
| NTDB id   | 1397    | DSB67 RS15690 WP 005535577.1   | MGLAIITHSRASVGVGQAPSVEVHLSNGMPGFTLVGLPETTVKESKDRVRSAIVNSNFQFPAKRITVNLAPADLPKEGGR                                | 80 |
| NTDB id   | 1349    | HI 1117 AAC22771.1             | MSLAIVYSRASMGVQAPLVTIEVHLSNGKPFGFTLVGLPEKTVKEAQDRVRSAIMNAQFKYPAKRITVNLAPADLPKEGGR                               | 80 |
| NTDB id   | 1387    | A4U84 RS06900 WP 020457569.1   | MSLAIIYSRASIGVEAPLVTIEVHISGGSPGLTLVGLPEKSVEKAQDRVRSAIMNANFDYPARRITINLAPADLPKEGGR                                | 80 |
| consensus |         |                                | * * * * *                                                                                                       |    |

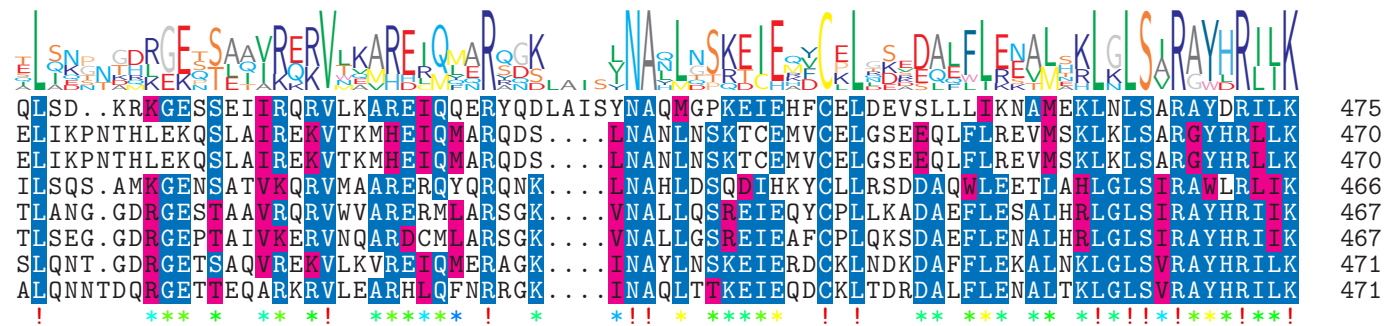
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NTDB id 1271 LPP RS03220 WP 011213198.1 FDLPIALGILAASEQTPLTNLANHEFIGELALSSELGRGVSATTPAVLAAHKD.NQHLLIANANAAEASTIGHQKVFTANN 159  
NTDB id 1248 GC085 RS03150 WP 011213198.1 FDLPIALGILAASEQTPLTNLANHEFIGELALSSELGRGVSATTPAVLAAHKD.NQHLLIANANAAEASTIGHQKVFTANN 159  
NTDB id 1082461 ACK2VP RS00120 WP 046274875.1 YDLPIAVALLAASEQTTPHNLDTYEVLVGELALTGALRGVPGCATSSATEAIRA.GRRIIVAKENAEEVLGHGECLIAADH 159  
NTDB id 1153 A1552VC RS00115 WP 000521788.1 FDLPIALGILAASEQTARNKLSESYEFIGELALSGETIRGVKGVLPAALAANKV.ERCLLVPHSNGDQAALVGVERHKSACS 159  
NTDB id 1397 DSB67 RS15690 WP 005535577.1 FDLPIALGILAASEQTATDKLKNYEFVVGELALSGGLRTTVKGVLPAALAANKK.QRHLLVVPHANGDQAALVGKEQHKSACS 159  
NTDB id 1349 HI 1117 AAC22771.1 FDLPIALGILAASEQLDASHKKQFEFVAELALTQHLRGVHGVIPTAILAAQKS.KRELTIQKNANEASLVSDQNTTYFACT 159  
NTDB id 1387 A4U84 RS06900 WP 020457569.1 FDLPIALGILAASQQIDSKLKRITELLGELSITGHLRGVHGAIPTAVLAAASKA.KREITIIVPQQNANEASLVSNLTQTYCAST 159

consensus \*!!\*!!\*\*!!!!!\*!\*\*\*\*\*!!\*!\*\*\*\*!!\*!\*\*\*!!\*!!\*!!\*!!\*!!\*!!\*!!\*!!\*!!\*!!\*!!\*

|           |         |                    |             |                                                                                    |     |
|-----------|---------|--------------------|-------------|------------------------------------------------------------------------------------|-----|
| NTDB id   | 1323    | RAOC RS07335 WP    | 004916218.1 | IKEVIDFFNENCPLEPTKVNTREEFHKRVNLFPFDFSEVKGGQETAKRAMEVAAGGHNHLLIGPPGSGKTMLAKRIPSL    | 238 |
| NTDB id   | 1271    | LPP RS03220 WP     | 011213198.1 | IREVCDYLCCGTSLQLSPLPKPDL...LLNNYELDWSIDIKGQQHAKNAMVIAACGGHSILLSCAPCSGKTMMAKRFSTLL  | 235 |
| NTDB id   | 1248    | GC085 RS03150 WP   | 011213198.1 | IREVCDYLCCGTSLQLSPLPKPDL...LLNNYELDWSIDIKGQQHAKNAMVIAACGGHSILLSCAPCSGKTMMAKRFSTLL  | 235 |
| NTDB id   | 1082461 | ACK2VP RS00120 WP  | 046274875.1 | LQTVCAELEGKHDLDRPSAD...FTPNALADLSDVIGQEQRGLETTAAGGHNLLIGPPGTGKTMLASRLRGLL          | 234 |
| NTDB id   | 1153    | A1552VC RS00115 WP | 000521788.1 | LEEVCADLCGQQTSLFQSSPSV...QQVSQTRDLQDIIGQQQGKRALETAAAGNHNLLFLGPPGTGKTMLASRLCDLL     | 235 |
| NTDB id   | 1397    | DSB67 RS15690 WP   | 005535577.1 | LEEVCAEFCGQHGLNLYQTPKKK...ELKAHGRDLQDIIGQQQGKRALETAAAGNHNLLFLGPPGTGKTMLASRLCDLL    | 235 |
| NTDB id   | 1349    | HI 1117 AAC22771.1 |             | LLDVVQFLNGQEKPLATEIVKESAVNFSGKNITLDITDIIGQQHAKRALTIAAAGQHNNLLFLGPPGTGKTMLASRLTGLL  | 239 |
| NTDB id   | 1387    | A4U84 RS06900 WP   | 020457569.1 | LLQVVNFLNNRDQLPIAQQLSQNIAEN.RPLVSRDLITDIIGQQHAKRALTIAASGQHNNLLFLGPPGTGKTMLASRLADLL | 238 |
| consensus |         |                    |             | * * ! * * * * ! * * ! * * * * * ! * ! * * ! * * ! * * ! * ! * ! * ! * ! * ! *      |     |

|           |         |                    |             |                                                        |                                       |                 |     |
|-----------|---------|--------------------|-------------|--------------------------------------------------------|---------------------------------------|-----------------|-----|
| NTDB id   | 1323    | RAOC RS07335 WP    | 004916218.1 | PPLTLKEAEETTKTHSVAGKMGAETSLMTIRPFRSPHHTISDVVALVGGGSYPQ | PGEISLAHNGLVFLDLMPEFKRTVLE            | V               | 318 |
| NTDB id   | 1271    | LPP RS03220 WP     | 011213198.1 | PELSETGALIECAAINSTRIGKLPDF.REWRILPPFRAPHHTASPV         | VALVGGGNPKPGEISLAHNGVLFLDELPEFNRRQVLE | T               | 314 |
| NTDB id   | 1248    | GC085 RS03150 WP   | 011213198.1 | PELSEGTGALIECAAINSTRIGKLPDF.REWRILPPFRAPHHTASPV        | VALVGGGNPKPGEISLAHNGVLFLDELPEFNRRQVLE | T               | 314 |
| NTDB id   | 1082461 | ACK2VP RS00120 WP  | 046274875.1 | PPLSNDEAEESAAITLSLIHSDTIQ.KQWKQRPFRRSPHSSASTAMVGGS     | SIPAPGEISLAHNGLIFLDELPEFERRTLDA       | A               | 313 |
| NTDB id   | 1153    | A1552VC RS00115 WP | 000521788.1 | PEMSDEEAMETASIASLTQQEINQ.HNWKLRPFRAPHHSSMAALVGGG       | TIPRGEISLAHNGLIFLDEMPEFERKVLD         | S               | 314 |
| NTDB id   | 1397    | DSB67 RS15690 WP   | 005535577.1 | PEMSDEEAMETASVASLTQSSEINE.HNWKTRPFRAPHHSSMAALVGGG      | SVPRPGEISLAHNGLIFLDEMPEFDRKVLD        | S               | 314 |
| NTDB id   | 1349    | HI 1117 AAC22771.1 |             | PEMTDLAEATETASVTSLVQNELNF.HNWKQRPFRAPHHSSMPALVGGG      | TIPKGEISLATNGVLFLDELPEFERKVLD         | A               | 318 |
| NTDB id   | 1387    | A4U84 RS06900 WP   | 020457569.1 | PEMEDDEAETASVTSLVQNELNF.QNWKKRPFRSPHSSASMV             | VALVGGGSIPKGEISLAHNGLVFLDELPEFERKVLD  | A               | 317 |
| consensus |         |                    |             | !***!*!*!*!*!*!                                        | *!***!*!*!*!*!*!                      | !***!*!*!*!*!*! |     |

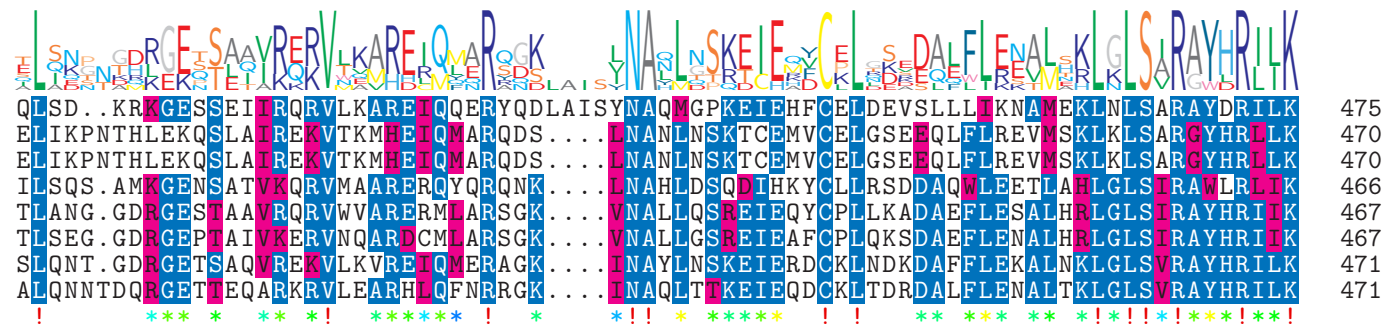
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NTDB id 1323 RA0C RS07335 WP 004916218.1
NTDB id 1271 LPP RS03220 WP 011213198.1
NTDB id 1248 GC085 RS03150 WP 011213198.1
NTDB id 1082461 ACK2VP RS00120 WP 046274875.1
NTDB id 1153 A1552VC RS00115 WP 000521788.1
NTDB id 1397 DSB67 RS15690 WP 005535577.1
NTDB id 1349 HI 1117 AAC22771.1
NTDB id 1387 A4U84 RS06900 WP 020457569.1
consensus
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NTDB id 1323 RA0C RS07335 WP 004916218.1
NTDB id 1271 LPP RS03220 WP 011213198.1
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consensus

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NTDB id 1323 RA0C RS07335 WP 004916218.1
NTDB id 1271 LPP RS03220 WP 011213198.1
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NTDB id 1082461 ACK2VP RS00120 WP 046274875.1
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NTDB id 1397 DSB67 RS15690 WP 005535577.1
NTDB id 1349 HI 1117 AAC22771.1
NTDB id 1387 A4U84 RS06900 WP 020457569.1
consensus

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- X non conserved
- X similar
- X  $\geq 50\%$  conserved