```
logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  .MITKPEGSRWTDEQWEAIASRNQDVLVAAAAGSGKTAVLVERIIRRLADENDPAEVDRILVVTFTNAAAAEMRHRIGEA   79
NTDB id 119 BSU 10630 NP 388944.2            MNIPKPADSTWTDDQWNAIVSTGQDILVAAAAGSGKTAVLVERMIRKITAEENPIDVDRLLVVTFTNASAAEMKHRIAEA   80
consensus                                    * !*!!  ! !!!*!! !! !  !!*!!!!!!!!!!!!!!!!*!!**  !  ! *!!!*!!!!!!! !!!!*!!!*!!

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  LEEKLKEDPSSLYLRRQLSMLNRASISTLHSFCMEVLRRYYYKIDLDPAFRVADQTEAALLREEAMEELFEEHYSQKENE  159
NTDB id 119 BSU 10630 NP 388944.2            LEKELVQRPGSLHIRRQLSLLNRASISTLHSFCLQVLKKYYYLIDLDPGFRIADQTEGELIGDEVLDELFEDEYAKG.EK  159
consensus                                    !!  !   ! !!**!!!!!*!!!!!!!!!!!!!* !!**!!! !!!!!*!!*!!!!!* !* *! **!!!!**!   *

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  AFYDLVDRYSSDRSDVDLQLLVERLFHFSSSHPWPKQWLVDSVDLYKNAGDKRFDELIWVEELKKDVVLQLEGMREVQEK  239
NTDB id 119 BSU 10630 NP 388944.2            AFFELVDRYTTDRHDLDLQFLVKQVYEYSRSHPNPEAWLESFVHLYDVSEKSAIEELPFYQYVKEDIAMVLNGAKEKLLR  239
consensus                                    !!**!!!!!**!!*!*!!! !!  ****! !!! !  !!   !*!!        *!!**   *! !* * ! ! *!   *

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  AISISSSPGGPEPYLSTLEVEREMVNGLLYASKESWEALKNAFEAVSFGRLKPCKGDQFDPELIDAVKGMRDRVKKIVQS  319
NTDB id 119 BSU 10630 NP 388944.2            ALELTKAPGGPAPRADNFLDDLAQIDEL.IQHQDDFSELYKRVPAVSFKRAKAVKGDEFDPALLDEATDLRNGAKKLLEK  318
consensus                                    !* **  !!!! !       *   *  !*  * * *  !    *!!!! ! !**!!! !!! !*!    *!   !!**

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  MKEDLFQREAEEYLEDIQKLAPVLETLASLVNEFRDKYTDLKKEKGLVDYSDLEHYCLSILLDEASTPDNPIASSAAKEY  399
NTDB id 119 BSU 10630 NP 388944.2            LKTDYFTRSPEQHLKSLAEMKPVIETLVQLVISYGKRFEAAKQEKSIIDFSDLEHYCLAILTAENDKGE.REPSEAARFY  397
consensus                                    *! ! ! ! *! *!  *  * !!*!!!  !!  *  **   ! !! **!*!!!!!!!! !!  !   **** *! !!* !

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  QTQFAEVLIDEYQDTNSVQETILNAISRTSEHGGNRFMVGDVKQSIYRFRLAEPGLFLAKYKSFGRSSEEPTKRIDLARN  479
NTDB id 119 BSU 10630 NP 388944.2            QEQFHEVLVDEYQDTNLVQESILQLVTSGPEETGNLFMVGDVKQSIYRFRLAEPLLFLSKYKRFTESGEGTGRKIDLNKN  477
consensus                                    !  !!*!!!*!!!!!!! !!!*!!* **  *!* !! !!!!!!!!!!!!!!!!! !!! !!! !   !  ! * **!!! *!

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  FRSREEVLNSTNFLFKQIMDERVGEIKYDRAAELITGAEYPKSQSVVPEVHVIDQSSD....EEEEEVEKVQLEARLIAS  555
NTDB id 119 BSU 10630 NP 388944.2            FRSRADILDSTNFLFKQLMGGKIGEVDYDEQAELKLGAAYPDNDETETELLLIDNAEDTDASEEAEELETVQFEAKAIAK  557
consensus                                    !!!! **! !!!!*!!!*!  **!!* !!  !!!  !! !!      *!***!!*  !****!! !!*! !! !!* !!
```

```
logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  NIKSMMGKSENERTKIYDRKEDRMRPIQYRDMVILMRATSSWAPVMMEELKQAGIPSYSDLATGYFEATEVAIMMSLLNV   635
NTDB id 119 BSU 10630 NP 388944.2            EIRKLIS....SPFKVYDGKKKTHRNIQYRDIVILLRS.MPWAPQIMEELRAQGIPVYANLTSGYFEAVEVAVALSVLKV   632
consensus                                     !* ** **** * !*!! !   *!*!!!!!*!!!*! * *!!! *!!!!*  !!! !  ! *!!!!! !!!* *!*! !

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  IDNPYQDIPLASVLRSPIIGLSEEELALIRINEKQSSYYLAMQAYCE..TESDELSEKITRFIDDLNRWREQARQSSLSE   713
NTDB id 119 BSU 10630 NP 388944.2            IDNPYQDIPLASVLRSPIVGADENELSLIRLENKKAPYYEAMKDYLAAGDRSDELYQKLNTFYGHLQKWRAFSKNHSVSE   712
consensus                                    !!!!!!!!!!!!!!!!!!*!  ! !! !!!*  !  *!! !!  !* **  !!!!  !*  !  *!**!!   ***!*!!

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  LIWQLYRETNYYEFVGGMPAGLQRQANLRALYDRARQYESTSFRGLFRFLRFIDRMKERGSDLGTARALGEQEDVVRVMT   793
NTDB id 119 BSU 10630 NP 388944.2            LIWEVYRDTKYMDYVGGMPGGKQRQANLRVLYDRARQYESTAFRGLFRFLRFIERMQERGDDLGTARALSEQEDVVRLMT   792
consensus                                    !!! *!!*! ! **!!!!!*! !!!!!!! !!!!!!!!! ! !!!!!!!!!!*!! !!! !!!!!!!! !!!!!!!*!!

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  IHKSKGLEFPVVFVAGIAKQFNMRDMANQMLLHKEFGLATKYIDPINRISYPTLPYFTLQKRMKLELLAEEMRVLYVALT   873
NTDB id 119 BSU 10630 NP 388944.2            IHSSKGLEFPVVFVAGLGRNFNMMDLNKSYLLDKELGFGTKYIHPQLRISYPTLPLIAMKKKMRRELLSEELRVLYVALT   872
consensus                                    !! !!!!!!!!!!!!****!!! !*    !!*!! ! *!!!!*!  !!!!!!!!   * !*!* !!! !!*!!!!!!!!

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  RAKEKLILVGTVNDWEKELLSWAEA.PGEEWLLSDYERSTSKTYLNWIGPAIIRHQDLSSITEGIASFPKHDEVFHHPSR   952
NTDB id 119 BSU 10630 NP 388944.2            RAKEKLFLIGSCKDHQKQLAKWQASASQTDWLLPEFDRYQARTYLDFIGPALARHRDLGDL....AGVPAHADISGHPAR   948
consensus                                    !!!!!! !*!** !* ! !   !   **  *!!!****!   *!!! *!!!!* !! !!  *****!  ! ! ** *!! !

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  WSLTLHQASDFSQV.EEEDVKKHEEYEELLRRKAYVPEESAFKDVVHNRLNWTYPHQAAAETRSKQSVTEVKRQREIFQD  1031
NTDB id 119 BSU 10630 NP 388944.2            FAVQMIHSYDLLDDDLEERMEEKSERLEAIRRGEPVPGSFAFDEKAREQLSWTYPHQEVTQIRTKQSVSEIKRKREYEDE  1028
consensus                                    * * ***  !    * !! *  * !  ! *!!  *!!   !! *  *  ! !!!!!!     !*!!!!*!*!! !!   *

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  ERSDDRLVKGFSQSLKERPRFLQSKKLTPAERGTAMHIVMQHIDLQQRHEENDIKELIAKLETKELLTNDQAQAIDVKQI  1111
NTDB id 119 BSU 10630 NP 388944.2            YSGRAPVKPADGSILYRRPAFMMKKGLTAAEKGTAMHTVMQHIPLSHVPSIEEAEQTVHRLYEKELLTEEQKDAIDIEEI  1108
consensus                                         ** **    !  !! !*  ! !!*!!*!!!!! !!!!!*! *     *    ***!  !!!!! *!  !!!*  !
```

```
logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  KHLIDSDLGDKMRNAVEIYKEVPFSLGVDSKWIYPDFKGDQETVVLQGVIDCILRDQHGELRLVDYKTDVIENRFSSEQQ  1191
NTDB id 119 BSU 10630 NP 388944.2            VQFFHTEIGGQLIGAKWKDREIPFSLALPAKEIYPDAHEADEPLLVQGIIDCLYETEDG.LYLLDYKSDRIEGKFQHGFE  1187
consensus                                     *  ****!  *  !    *!*!!!!*** ! !!!! *   !****!!*!!!*    *!*! !*!!!*! !! *! *

logo
NTDB id 405540 GNK04 RS08750 WP 240904096.1  .AMETMKRRYTTQLQLYEKAINEIWGLPCKEKILFFFDGGKSLLID  1236
NTDB id 119 BSU 10630 NP 388944.2            GAAPILKKRYETQIQLYTKAVEQIAKTKVKGCALYFFDGGHILTL.  1232
consensus                                    *! * *!*!! !!*!!! !!*  !   **! * !*!!!!!* ! **
```

X non conserved

X similar

X $\geq$ 50% conserved