```
logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  MILDVIPKPDGAQWTDDQWKAIVASGRDMLVAAAAGSGKTAVLVERIITKMVSE..HVDVDRLLVVTFTNASAAEMRHRI   78
NTDB id 119 BSU 10630 NP 388944.2            ...MNIPKPADSTWTDDQWNAIVSTGQDILVAAAAGSGKTAVLVERMIRKITAEENPIDVDRLLVVTFTNASAAEMKHRI   77
consensus                                    ***  !!!!    !!!!!! !!! *! !*!!!!!!!!!!!!!!!!*! !*  !** *!!!!!!!!!!!!!!!!!!*!!!

logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  GEALEKELEKKPASLHLRRQLSLLNRASISTIHSFCLEVIRKYYYLIDIDPGFRIADTTEIQLLQEEVLEMVFEEEYGQE  158
NTDB id 119 BSU 10630 NP 388944.2            AEALEKELVQRPGSLHIRRQLSLLNRASISTLHSFCLQVLKKYYYLIDLDPGFRIADQTEGELIGDEVLDELFEDEYAKG  157
consensus                                    *!!!!!!!  *!*!!!*!!!!!!!!!!!!!!*!!!!! !**!!!!!!!*!!!!!!!! !!  !* *!!!* *!!*!!*

logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  NDAFFDLVDRFTSDRTDHALQELVLKLYEFSRANEDPEQWLEDIVTFYRSANEESIDHFPFIEMLKNMIKLQLEAARTLL  238
NTDB id 119 BSU 10630 NP 388944.2            EKAFFELVDRYTTDRHDLDLQFLVKQVYEYSRSHPNPEAWLESFVHLYDVSEKSAIEELPFYQYVKEDIAMVLNGAKEKL  237
consensus                                     !!!*!!!!*!*!!*!* !! !!  *!!*!! ** !! !!!  !* !       !** !!   *!  ! * ! *!*  !

logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  EKASELTLRPGGPAPRAENVEQDLSQLFRLLEGLNLSWEDLYASMQELEFPRAKTCRGDEYDKDLLEAWTKARNQAKDIV  318
NTDB id 119 BSU 10630 NP 388944.2            LRALELTKAPGGPAPRADNFLDDLAQIDELIQH.QDDFSELYKRVPAVSFKRAKAVKGDEFDPALLDEATDLRNGAKKLL  316
consensus                                     *! !!!  !!!!!!!!*!   !! !*  !* ***  * *!!  ** * !*!!! **!!!*!* !!*  !  !! !! **

logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  NGIKEEFFTRRPESLLTDLAELAPVMDMLVKLVKKYGNAFHLLKQEKGLVDFSDLEHLCLRILRKKTGDGWT.RSEAALR  397
NTDB id 119 BSU 10630 NP 388944.2            EKLKTDYFTRSPEQHLKSLAEMKPVIETLVQLVISYGKRFEAAKQEKSIIDFSDLEHYCLAILTAENDKGEREPSEAARF  396
consensus                                     *! **!!! !! *!  !!!* !!** !! !!  !!  !*  !!!! **!!!!!!! !! !!       !  **!!!!

logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  YQSTFKEVMVDEYQDTNMVQEAILKLVTKDSEEEGNMFMVGDVKQSIYRFRLAEPFLFLSKYKRFHSEGYETGLKIDLNQ  477
NTDB id 119 BSU 10630 NP 388944.2            YQEQFHEVLVDEYQDTNLVQESILQLVTSGPEETGNLFMVGDVKQSIYRFRLAEPLLFLSKYKRFTESGEGTGRKIDLNK  476
consensus                                    !!  !*!!*!!!!!!!!*!!! !! !!!  *!! !!*!!!!!!!!!!!!!!!!!! !!!!!!!!!*  !  !! !!!!!

logo

NTDB id 393791 FIU87 RS06395 WP 152443809.1  NFRSRPEILDATNFLFKQMMGETVGEIDYNDDAELKFGASYYPEASNRETELLLIDRSDSLLNEEDDDQPSDGAETNTAF  557
NTDB id 119 BSU 10630 NP 388944.2            NFRSRADILDSTNFLFKQLMGGKIGEVDYDEQAELKLGAAY.PDNDETETELLLIDNAEDT...............DASE  540
consensus                                    !!!!!**!!! !!!!!!!*!!  *!!*!! * !!!! !! !*!*    !!!!!!!!  *  **************
```

```
logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  DKTELETAQVEAKLIAKRIKQLIQNGYEVYDKHLKVMRPVTYRDFVILMRSMPWAPQFMDEFKQQGLPLYANLSTGYFEA   637
NTDB id 119 BSU 10630 NP 388944.2            EAEELETVQFEAKAIAKEIRKLISSPFKVYDGKKKTHRNIQYRDIVILLRSMPWAPQIMEELRAQGIPVYANLTSGYFEA   620
consensus                                    *  !!!! ! !!! !!! !* !!  ** !!! * ! *!** !!! !!!*!!!!!!!! !*! * !!*!*!!!!**!!!!!

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  TEVAILLSLLKIIDNPYQDVPLAAVLRSPIVGLDSNDLATIRIQQKKGTYREALLAFLERQPDSVEERELLYKVKEFYEL   717
NTDB id 119 BSU 10630 NP 388944.2            VEVAVALSVLKVIDNPYQDIPLASVLRSPIVGADENELSLIRLENKKAPYYEAMKDYLAAGDR...SDELYQKLNTFYGH   697
consensus                                     !!!* !!*!!*!!!!!!!*!!! !!!!!!!! ! !*!  !!* *!!**!*!!*  *!   * ***  !!  !*  !! *

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  LQAWRTQAREGALSELIWKVYQDTHFYDFVGGMPGGKQRQANLRALYDRARQYEATSFRGLFRFLRFIERMQDRGEDLGA   797
NTDB id 119 BSU 10630 NP 388944.2            LQKWRAFSKNHSVSELIWEVYRDTKYMDYVGGMPGGKQRQANLRVLYDRARQYESTAFRGLFRFLRFIERMQERGDDLGT   777
consensus                                    !! !!   * * *!!!!! !! !!** !*!!!!!!!!!!!!!!! !!!!!!!!! ! !!!!!!!!!!!!!!!*!!*!!!

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  ARALGEQEDVVRLMTIHSSKGLEFPIVFVAGLSKQFNMMDLRKSYLMDKELGFGASFVNPKLRITYPTILQLAMKHKAKA   877
NTDB id 119 BSU 10630 NP 388944.2            ARALSEQEDVVRLMTIHSSKGLEFPVVFVAGLGRNFNMMDLNKSYLLDKELGFGTKYIHPQLRISYPTLPLIAMKKKMRR   857
consensus                                    !!!! !!!!!!!!!!!!!!!!!!!!*!!!!!! **!!!!!! !!!!*!!!!!!!  ***! !!!*!!!** *!!!*! *

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  QLIAEEMRVLYVALTRAKEKLYLVGTLKDAEKSMQNWNESVTHSDWLLPDYVRANAKSYMDWIGPALIRHNDTELLRDKE   957
NTDB id 119 BSU 10630 NP 388944.2            ELLSEELRVLYVALTRAKEKLFLIGSCKDHQKQLAKWQASASQTDWLLPEFDRYQARTYLDFIGPALARHRDLGDLAG..   935
consensus                                     !* !!*!!!!!!!!!!!!!!*!*!**!!* ! *  !* ! ***!!!!!** ! *!**!*!*!!!!! !! !   !  **

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  QTTECAAEITAHPSKWKVTMTNVHELLEEI.EEDKAVEDEQINRLRSGLPVSMQSPLKAQVESQLYWNYPYTKASLQRSK   1036
NTDB id 119 BSU 10630 NP 388944.2            ..VPAHADISGHPARFAVQMIHSYDLLDDDLEERMEEKSERLEAIRRGEPVPGSFAFDEKAREQLSWTYPHQEVTQIRTK   1013
consensus                                    ** ***!*!**!! ** ! ! * **!!** *!!      ! *  *! ! !!*   *       !! ! !!*   *  !*!

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  QSVSEIKRLREQQDPYAEQTMIRK.EKRFFLDRPAFLQKKQLSPTEVGTAMHAVMQNIKLSLEEEMNRDHLQAQVQEMVQ   1115
NTDB id 119 BSU 10630 NP 388944.2            QSVSEIKRKREYEDEYSGRAPVKPADGSILYRRPAFMMKKGLTAAEKGTAMHTVMQHIPLSHVPSIE..EAEQTVHRLYE   1091
consensus                                    !!!!!!!! !!  !*!    ******      !!!!* !! !** ! !!!!! !!!*!*!!* * * ***    !* *
```

```
logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  KELLSKEQAEVIDFEAILSFFHTKIGRKMLHAKQIHREIPFSYALQGDDMMEKPGVSEETVLIQGVIDCLIEDEEGIILI  1195
NTDB id 119 BSU 10630 NP 388944.2            KELLTEEQKDAIDIEEIVQFFHTEIGGQLIGAKWKDREIPFSLALPAKEIYPDAHEADEPLLVQGIIDCLYETEDGLYLL  1171
consensus                                    !!!!* !! * !! ! !* !!!! !!  ***!!  *!!!!!! !!** ** * **  *!**!*!!*!!!! ! !*!* !*

logo
NTDB id 393791 FIU87 RS06395 WP 152443809.1  DYKTDKINERYSS.ITEAEPILKRRYQEQVALYGKAVEHIWKKQLSAKYLYFFDGNHLIQMD  1256
NTDB id 119 BSU 10630 NP 388944.2            DYKSDRIEGKFQHGFEGAAPILKKRYETQIQLYTKAVEQIAKTKVKGCALYFFDGGHILTL.  1232
consensus                                    !!!*!*!  ** **   ! !!!!*!!  !* !! !!!!*! !  * ** !!!!!! !** **
```

X non conserved

X similar

X $\geq$ 50% conserved