```
logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  MIENWPEKPEGSQWTDDQWKAVVANGRDILVAAAAGSGKTAVLVERIIKKIISEEENPVDVDRLLVVTFTNAAAQEMKNRI   80
NTDB id 119 BSU 10630 NP 388944.2            ...MNIPKPADSTWTDDQWNAIVSTGQDILVAAAAGSGKTAVLVERMIRKITAEENPIDVDRLLVVTFTNASAAEMKHRI   77
consensus                                    ***  **!!  ! !!!!!! !*!  ! !!!!!!!!!!!!!!!!!!*!*!!  !!!!*!!!!!!!!!!!!! ! !!!*!!

logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  GEALEKVLIDGPGSQHIRKQLSLLNKASISTIHSFCLQVIRGYYYMLDVDPRFRIANQTENELLKEEVLDDILEEEYGIE  160
NTDB id 119 BSU 10630 NP 388944.2            AEALEKELVQRPGSLHIRRQLSLLNRASISTLHSFCLQVLKKYYYLIDLDPGFRIADQTEGELIGDEVLDELFEDEYAKG  157
consensus                                    *!!!!! !*  !!! !!!*!!!!!!*!!!!!*!!!!!!!** !!!**!*!! !!!! !!! !!* *!!!!** !*!!*

logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  DNSIFFELVDRYTSDRSDDDLQRMILALHTESRAHPNPEKWLDKLVEAYDVEGK.TIEDLVYASYLLEDVKFQLETAEEH  239
NTDB id 119 BSU 10630 NP 388944.2            .EKAFFELVDRYTTDRHDLDLQFLVKQVYEYSRSHPNPEAWLESFVHLYDVSEKSAIEELPFYQYVKEDIAMVLNGAKEK  236
consensus                                    *   !!!!!!!!!*!!*! !!! **  **  !! !!!!! !!*  !* !!!  !* !!*!**  !* !!*   !  ! !*

logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  IRKATELAMLPDGPAPRAETLQADLALLGTLSSAARGSWTSVYEAMQNVSWQTLKRIKKSDYNEDVVKQVDSLRNKAKDE  319
NTDB id 119 BSU 10630 NP 388944.2            LLRALELTKAPGGPAPRADNFLDDLAQIDELIQ.HQDDFSELYKRVPAVSFKRAKAVKGDEFDPALLDEATDLRNGAKKL  315
consensus                                    * *! !!   ! !!!!!!*    !!! *  !  **   ** *!  ** !!*   ! *!  ** * **     !!! !!

logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  VKKLQEELFSRRPESFLRDFQDMHPVLEKLVKLVKVFTERFQAIKRDKGMVDFTDLEHFCLQILSEQSEDGEMKPSAVAL  399
NTDB id 119 BSU 10630 NP 388944.2            LEKLKTDYFTRSPEQHLKSLAEMKPVIETLVQLVISYGKRFEAAKQEKSIIDFSDLEHYCLAILTAENDKGEREPSEAAR  395
consensus                                    * !!  * !*! !! *!*   *!*!!*! !! !!  *  !! ! ! *! **!!*!!!!*!! !!*   * !!  !!  !

logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  QYRNKFAEVLVDEYQDTNFVQESIIKFVTKDSESEGNLFMVGDVKQSIYRFRLAEPGLFLGKYKRFTQEGLGGGMKIDLA  479
NTDB id 119 BSU 10630 NP 388944.2            FYQEQFHEVLVDEYQDTNLVQESILQLVTSGPEETGNLFMVGDVKQSIYRFRLAEPLLFLSKYKRFTESGEGTGRKIDLN  475
consensus                                     !   !*!!!!!!!!!!! !!!!!*  !!  *!  !!!!!!!!!!!!!!!!!!!! !!! !!!!!!  ! ! ! !!!!

logo

NTDB id 347017 EXW56 RS05740 WP 215597297.1  KNFRSRHEVLAGTNFIFKQIMGEEVGEIDYDADAELKLGASYPEGEDVAAELLCIQQTEEEVQEGEEGTEVEKAQLEARL  559
NTDB id 119 BSU 10630 NP 388944.2            KNFRSRADILDSTNFLFKQLMGGKIGEVDYDEQAELKLGAAYPDNDETETELLLIDNAED.TDASEEAEELETVQFEAKA  554
consensus                                    !!!!!!***!  !!!*!!!*!!  *!!*!!!  !!!!!!! !!* **   !!!*! * !**    !!* !*!  ! !!*
```

```
logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  MAQRIKAMVDSGYEVYDRKTDSMRPVQYRDFVILLRSMPWAPQIMEELKLQGIPVYADLATGYFEATEVNIMMNVFRVID   639
NTDB id 119 BSU 10630 NP 388944.2            IAKEIRKLISSPFKVYDGKKKTHRNIQYRDIVILLRSMPWAPQIMEELRAQGIPVYANLTSGYFEAVEVAVALSVLKVID   634
consensus                                    *!  !* ** !** !!! !  **!**!!!! !!!!!!!!!!!!!!!!* !!!!!!! ! *!!!!! !! * * ! *!!!

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  NPMQDIPLAAVLRSPIVGLNDEELATLRAHGKKGSFYEVMSSFLKGAPLEEEQELHDKLEWFYKLLQGWREFARQQSLSD   719
NTDB id 119 BSU 10630 NP 388944.2            NPYQDIPLASVLRSPIVGADENELSLIRLENKKAPYYEAMKDYLAAGD..RSDELYQKLNTFYGHLQKWRAFSKNHSVSE   712
consensus                                    !! !!!!!! !!!!!!!!  * !!  *! * !!***!! !  *! *****   !!* !!  !! *!! !! ! ***!*!*

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  LIWKVYGETGYYDFVGGLPAGKQRQANLRVLYDRARQYEATSFRGLFRFLRFIERILERGDDMGTARALGEQEDVVRIMT   799
NTDB id 119 BSU 10630 NP 388944.2            LIWEVYRDTKYMDYVGGMPGGKQRQANLRVLYDRARQYESTAFRGLFRFLRFIERMQERGDDLGTARALSEQEDVVRLMT   792
consensus                                    !!! !! *! ! !*!!!*!*!!!!!!!!!!!!!!!!!! ! !!!!!!!!!!!!!* !!!!!*!!!!!! !!!!!!!*!!

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  IHKSKGLEFPVVFVAGLGRRFNTQDLMKRFLLHKDFGFGSQFIDPRKRIKYTTLSQLAIKRKMKMELIAEEMRVLYVALT   879
NTDB id 119 BSU 10630 NP 388944.2            IHSSKGLEFPVVFVAGLGRNFNMMDLNKSYLLDKELGFGTKYIHPQLRISYPTLPLIAMKKKMRRELLSEELRVLYVALT   872
consensus                                    !! !!!!!!!!!!!!!!! !!  !! ! *!!*!* !!!* *!*!  !! !*!!* *!*!*!!* !!* !!*!!!!!!!

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  RAKEKLILIGTVKDANKEMEKWLDAREHSEWLLPDHIRAGASCYLDWIAPSLYRHRDSEMLLELGQGNIPGEIYGYSASW   959
NTDB id 119 BSU 10630 NP 388944.2            RAKEKLFLIGSCKDHQKQLAKWQASASQTDWLLPEFDRYQARTYLDFIGPALARHRDLGDLAGVP...AHADISGHPARF   949
consensus                                    !!!!!! !!!**!!**! * !!     ***!!!!** !  ! *!!!*!*! ! !!!!   !  *****  **! !**! *

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  KVEVVDGKTLLAPE..PVQEEKQELLEALRDKKAVPLESERKEEVYDRLMWEYGYEDATSHRAKQSVTEIKRNYQSEEG.   1036
NTDB id 119 BSU 10630 NP 388944.2            AVQMIHSYDLLDDDLEERMEEKSERLEAIRRGEPVPGSFAFDEKAREQLSWTYPHQEVTQIRTKQSVSEIKRKREYEDEY   1029
consensus                                     ! ***   !! *****  !!! ! !!!*!   *!!      !   * ! ! !** * ! *! !!!!*!!!!    !* *

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  .SDNAFIKKLRAPIKTRPRFMEKKGLTYAERGTAVHAVMQHVDLKKPITIEVLQEQIARMVNKELLTFEQAEEIAIEKVI   1115
NTDB id 119 BSU 10630 NP 388944.2            SGRAPVKPADGSILYRRPAFMMKKGLTAAEKGTAMHTVMQHIPLSHVPSIEEAEQTVHRLYEKELLTEEQKDAIDIEEIV   1109
consensus                                    *   *  *    **  !! !! !!!!! !!*!!!*! !!!!**! ****!!     **!*  !!!!! !! * ! !! **
```

```
logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  SFFDSDLGKRVLAAKSVEREVPFTMMLSAEEAYQDWQGKSDESILVQGVIDCMIEEEDGITLIDFKTDTIEGKFPGGFDQ  1195
NTDB id 119 BSU 10630 NP 388944.2            QFFHTEIGGQLIGAKWKDREIPFSLALPAKEIYPDAH.EADEPLLVQGIIDCLYETEDGLYLLDYKSDRIEGKFQHGFEG  1188
consensus                                     !!****!  ***!!  *!!*!!** !*! ! !*! **  !!**!!!!*!!!* ! !!!* !*!*!*! !!!!!**!!*

logo
NTDB id 347017 EXW56 RS05740 WP 215597297.1  AKPTLEDRYKVQLSLYAKALEKSLKHPVKEKCLYFFDGNHVVNIEE  1241
NTDB id 119 BSU 10630 NP 388944.2            AAPILKKRYETQIQLYTKAVEQIAKTKVKGCALYFFDGGHILTL..  1232
consensus                                    ! ! !  !!  !* !! !!*!   !**!! **!!!!!! !** ***
```

X non conserved

X similar

X $\geq$ 50% conserved