```
logo
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  MAEQESLALFNDTPEELFMKGTMLSTIFYNAENLFSVVRILVKETNADWDEKDIIVTGFFPALHEQEVYTFYGKMQEHAK   80
NTDB id 355 BSU 27480 NP 390625.1              MQQH...PDQLKLEEEPYLKGTVNTVIYHNDTNLYTVLKVKVTETSEAIEDKAVSVTGYFPALQEEETYTFYGKIVTHPK   77
consensus                                      !  *****     *!!***!!!* * !**!  !!**!*** ! !!    **! * !!!*!!!!*! ! !!!!!!*  !*!

logo
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  FGQQFKADRFRKEMPQSRAGLINYLSGELFKGIGKVTAENIVDTIGDDAITKILSDPSLLNTVPKLPSGAAESLLASLRE  160
NTDB id 355 BSU 27480 NP 390625.1              FGLQFQAEHFKKEIPTTKEGIIQYLSSDLFEGIGKKTAEEIVKKLGDSAINKILADASVLYDVPRLSKKKADTLAGALQR  157
consensus                                      !! !! !**!*!!*! ** !*!*!!! *!! !!!! !!! !!  *!! !! !!! !*!*!  !!*!*   !**! * !

logo
NQGLEHVMVGLNEYGFGPQLSMKIYQAYKSNTLEVLQNNPYQLYKDYKGIGFQRADELGRMGLSGNHPERYRAGILYTL
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  NQGLEHVMVGLNEYGFGPQLSMKIFQAYKQNAIEVLENNPYKLIEDIKGIGFQRADELGRKLGLGGNHPERLRAGILFML  240
NTDB id 355 BSU 27480 NP 390625.1              HQGLEQIMISLNQFGFGPQLSMKIYQAYESETLEKIQENPYQLVKDVEGIGFGKADELGSRMGLSGNHPERVKAAILYTL  237
consensus                                      *!!!!**!* !! *!!!!!!!!!!*!!!    *! *  !!! !* !* !!!! *!!!!! **!! !!!!!!**!*!!* !

logo
ETVCMSQGHVYMETEVLLIEVTYLLNQSAREGQRITQNILVNQVIKLGENQKIYTENTRVYMPSLYYSESNVAYRVKRML
DSTCLQEGHTTIEQLQLIGDTQSLLEESAREGIRIDEMDAAAAIEALAEKDIIEDGRCYFPSLFYAEQGFAKHVKRHIA
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  DSVCMQQGHVYMEQEVLLGEVTYLLEES..EGIRIDQNILVAQVEKLAEEQKIITENTRVYMPSLYYSESGFAYHVKRML  318
NTDB id 355 BSU 27480 NP 390625.1              ETTCLSEGHTYIETEQLIIDTQSLLNQSAREGQRITEMDAANAIIALGENKDIVIEDGRCYFPSLFYAEQNVAKRVKHIA  317
consensus                                      ** !*  !! !*! ! !* *   !!  !**!! !!        *  !*!   !* !  !*! !!!*! !   ! *!!**

logo
SQTEYQNQFPQSEFLLALGELEERMGVQYGPSQRQALQQALSSPMLVLTGGPGTGKTTVIRGIVELYGELNGVSLDPSAY
KQTEYEEQFPESEFLLALGELEERIDVHYADSQKEATEKALMSPMLLLTGGPGTGKTTVIRGIVELYAELNGVSLDPHAY
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  KQTEYQEQFPQSEFLLALGELEERIGVHYGDSQRQALEQALMSPMLVLTGGPGTGKTTVIKGIVELYAELNGVSLDPHAY  398
NTDB id 355 BSU 27480 NP 390625.1              SQTEYENQFPESEFLLALGELEERMDVQYAPSQKEAIQKALSSPMLLLTGGPGTGKTTVIRGIVELYGELHGVSLDPSAY  397
consensus                                       !!!!  !!! !!!!!!!!!!!!!* !*!**!!* !*  !! !!!!*!!!!!!!!!!!!!*!!!!!!*!!*!!!!!!*!!

logo
KKGETFPYVLAAPTGRAAKRMSESTGLPAVTIHRLLGWNGQEQMTHTEERPLEGRLLIYDEMSMVDIWLANQLFRALPDH
DDAAFPYLLAAPTGRAAKRMSESTGLPAMTIHRLLGMNGAEGFDDDADQLIDGRLLIVDEASMLDIWLANHLFKAIPDH
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  KDGATFPVLLAAPTGRAAKRMSESTGLPAMTIHRLLGMNGQEQMDDDAERLIDGRLLIVDEMSMVDIWLANQLFRALPAH  478
NTDB id 355 BSU 27480 NP 390625.1              KKDEAFPIVLAAPTGRAAKRMSESTGLPAVTIHRLLGWNGAEGFTHTEDQPIEGKLLIIDEASMLDIWLANHLFKAIPDH  477
consensus                                      !    !!**!!!!!!!!!!!!!!!!!!!!!!*!!!!!!! !! !   *  * *!*!*!!!*!! !!*!!!!!!*!!*!*! !

logo
MQVVLVGDQDQLPSVGPGQVLRDLLQSQVIPTVRLTDIYRQKEGSSIYELAHYMKNGMLPNNLTKPTKDRSFIRCTVSQI
MQVVLVGDQDQLPSVGPGQVLRDLLQSEQIPTVALSDIYRQKDGSSIIEMAHYIKEGMLPADFTKNSADRSFFHCTVNQI
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  MQVVLVGDQDQLPSVGPGQVLKDILQSEQIPTVALSDIYRQKDGSSIIEMAHYIKEGMLPADFTKNSADRSFFHCTVNQI  558
NTDB id 355 BSU 27480 NP 390625.1              IQIIIVGDEDQLPSVGPGQVLRDLLASQVIPTVRLTDIYRQAEGSSIVELAHQMKNGLLPNNLTAPTKDRSFIRCGGSQI  557
consensus                                      *!***!!! !!!!!!!!!!!!!*!*! !  !!!! !*!!!!! *!!!!*!*!! *! !*!!   ! **  !!!! *!   !!
```

```
logo
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  GDVVEQVVKNAKNKGFRAKDIQVLAPMYRGPAGIDILNKKLQEIFNPNDTGRRKEVQFGDIKYRVHDKVLQLINQPEKNV   638
NTDB id 355 BSU 27480 NP 390625.1              KEVVEKVVANALKKGYTAKDIQVLAPMYRGKAGINELNVMLQDILNPPKE.KRRELKFGDVVYRTGDKILQLVNQPENNV   636
consensus                                       *!!! !! !!  !!* !!!!!!!!!!!!!*!!!  !!  !!*! !!*  **!*!* !!!* !! *!!*!!!*!!!! !!

logo
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  FNGDIGEIVSIIYAKENTEKQDLIVVQFDQTEVSYYRQEFNQLTHAYCCSIHKAQGSEFPIVIMPIVRSYYRMLRRDLLY   718
NTDB id 355 BSU 27480 NP 390625.1              FNGDIGEITSIFYAKENTEKEDMAVVSFDGNEMTFTKKDFNQFTHAYCCSIHKSQGSEFPIVVLPVVKGYYRMLRRNLLY   716
consensus                                      !!!!!!!!! !! !!!!!!!! !* !! !!  !*** * *!!! !!!!!!!!!! !!!!!!!!**!*!* !!!!!!! !!!

logo
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  TGVTRSKQFLILCGEEEAFRMGIERIDENKRNTTLSERLMSEDVLLEQMTNKRILTAENITEIDPMIGMEGITPEQFMAG   798
NTDB id 355 BSU 27480 NP 390625.1              TAITRAKKFLILCGEEEALEWGVKNNDATVRQTSLKNRLSVQVEEMDA.ELEALQKELPFSVHDANIGMEGITPFDFMKE   795
consensus                                      !**!! ! !!!!!!!!!!   !*   !   !*!*!  !!      ** *    *    * * *!* !!!!!!!!  !!

logo
NTDB id 1082444 ACK2VG RS07845 WP 003727413.1  ...   798
NTDB id 355 BSU 27480 NP 390625.1              EQQ   798
consensus                                      ***
```

X non conserved

X similar

X ≥ 50% conserved