```
logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  MSLRFVIGRAGSGKSTLCLREVQEELKQRPRGKTILYLVPEQMTFQTQQALIGSEDVRGSIRAQVFSFSRLAWKVLQEVG   80
NTDB id 120 BSU 10620 NP 388943.2              MGAEFLVGRSGSGKTKLIINSIQDELRRAPFGKPIIFLVPDQMTFLMEYELAKTPDMGGMIRAQVFSFSRLAWRVLQHTG   80
consensus                                      !   !**!! !!!!* !**  *!*!!*  ! !!*!**!!!*!!!!     !  **!* ! !!!!!!!!!!!!!*!!!* !

logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  GASRLHIDEAGVHMLLRKIVESRKDGLSVRQKAAEQNGFFEHLGSMIAEFKRYNVTPSNVYEMWQQLDAHSSSAEQKLLA  160
NTDB id 120 BSU 10620 NP 388943.2              GMSRPFLTSTGVQMLLRKLIEEHKQEFKVYQKASDKSGFTAQVERMLTEFKRYCLEPEDIRRMAESGTA.SEYRGERVLS  159
consensus                                      ! !!***   !!*!!!!!**! *!    !*!!! *  !!  **  !* !!!!!** !  *  !     !*!     **!

logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  NKVYDLQLLYDDFERALIGKYLDSEDYLQLLVEKLPQSEYVNGAEIYIDGFHSFSPQELEIVRQLMICGARVTITLTIDE  240
NTDB id 120 BSU 10620 NP 388943.2              EKLHDLSILYQQMEKSLADQYLHSEDYLTLLAEHIPLAEDIKGAHIYVDGFYQFTPQEFRVLEQLMVHAEHITFSLTADK  239
consensus                                       !**!! *!!   !* !   !!*!!!!! !! !**!  ! * !!*!!*!!!* !*!!!  ** !!!* * **! *!! !

logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  KTLAQPVNELDLFYETTLTYEKIKQVAREEKIEIEKTIPLMEQPRFHSPALAHLEAHYEARPNEKFNGE.ASVTISTAAN  319
NTDB id 120 BSU 10620 NP 388943.2              PSYEREPHELELFRMTGKTYYRLHQKAKELNLDITYKELSGTERHTKTPELAHLEAQYEARPAIPYAEKQEALTVMQAAN  319
consensus                                      **   ***!!*!!  !  !! ***! !*!  **!   *   ** **! !!!!!!*!!!!!  **   *  *!*  !!!

logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  LRAEVEGVAREIRKLVADEKYRYRDIAVLLRNGESYYDVMRTLFTDYNIPHFIDEKRPMSHHPLVECIRSALEIISGNWR  399
NTDB id 120 BSU 10620 NP 388943.2              RRAELEGIAREIHALVREKGYRYKDVAILARQPEDYKDMVKEVFADYEIPYFIDGKASMLNHPLIEFIRSSLDVLKGNWR  399
consensus                                       !!!*!!*!!!!* !! *  !!!*!*!*! !**! ! !*** *! !! !!*!!! ! *! *!!!*!*!!! !*** !!!!

logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  YDAVFRCVKTELLYPLEVRKEAMREEMDEFENYCLAYGVQGKRWTAEDPWMYRRYRSLDDTNGMITDSEREMEEKINRLR  479
NTDB id 120 BSU 10620 NP 388943.2              YEAVFRCVKTELLFPLNEPKAKVREQVDQLENYCIAYGIKGDRWTKGDRFQYRRFVSLDDDFA.QTDQEIEMENMLNDTR  478
consensus                                      !*!!!!!!!!!!!*!!   *!   *!! *!   !!!!*!!!* ! !!!   !** !!!* !!!!   ** !! ! !!!   *!   !

logo

NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  DVVRTPVIRMQKRLKRAGTVMQMCEAVYLFLEELDVPKKLEELRIRAEESGDFLFATDHEQVWEEVMSLLDTFVEMLGEE  559
NTDB id 120 BSU 10620 NP 388943.2              DWIVPPLFQLQKRMKKAKTVQEKAEALYRYLEETDVPLKLDQERQRAEDDGRIIEAQQHQQAWDAVIQLLEEFVEMMGDD  558
consensus                                      ! * *!*  *!!!*!*! !!   *!!*! *!!! !!! !!*  ! !!!* !  * !  ! ! !* !* !!* !!!!*!**
```

```
logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  KMSLSMFTDVMSTGLEALQFANIPPSLDQVLIANIDHSRLSDVRATFIIGVNEGVIPAAPMDEGMLSDEEREVLGAAGIE   639
NTDB id 120 BSU 10620 NP 388943.2              EISLDLFQQMIEAGAESLTFSLIPPALDQVFVGNMDLSRMYGTSCTFVLGANDGVLPARPDENGVLSDDDREWLKTIGVE   638
consensus                                       *!! *!  **  ! ! ! ! !!! !!!! **!*!*!!*    *!!**! !*!!*!! ! * !*!!!**!! !   !*!

logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  LAPTTRQTLLEEQFVMYQMVTRASEKLYISCPLADEEGKTLLASSFIKKIKRMFPNVKDSFITNDVNDLSRSEQISYVAT   719
NTDB id 120 BSU 10620 NP 388943.2              LSSGGRERLLDEHFLIYMAFSSPSDRLYVSYPIADAEGKTLLPSMIVKRLEELFPHHKERLLTNEPEQVSDEEQLMYVVN   718
consensus                                       ! *  !  !!*!*!**!   * *!**!!*!*!*!! !!!!!!*!  *!**  *!!**!*  *!!**  *!  !!* !!

logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  PEVTLSYVMQQLQTWKRYGFEGNLDFWWDVYNFYVTSDEWKQKSSRVLSSLFYRNRAKKLSTAVSRDLYGDIIKGSVSRM   799
NTDB id 120 BSU 10620 NP 388943.2              KSVAQSFTASQLRLWTREY..DISDVWWSTYNVLMSEQD.RLQSKKLFSSLFFRNEVKQLERSVSRQLYGERIQGSVSRM   795
consensus                                      * !  !*   !!  ! !  **   ! !!  !!  **  ***  ! ** !!!!*!!  ! !   !!! !!!* ! !!!!!!

logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  ELFNRCAYAHFAQHGLSLRERDIFKLDAPDIGELFHAALKKIADKLLRENRTWADLSIKECEHLSVLVIEEIAPLLQRQI   879
NTDB id 120 BSU 10620 NP 388943.2              ETFNACPFSHFASHGLHLKERQFFKLEAPDIGQLFHSSLKLISDRLREQKLDWRDLTKEQCELFSYDAVERLAPKLQKEI   875
consensus                                      ! !! !** !!! !!!*!*!!  !!!*!!!!! !!!  !! ! !*!      ! !!*   !!* !   *! *!! !!* !

logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  LLSSNRHFYLKQKLQQIIFRTSIILREHAKSSGFVPVDLEVPFGMGGTGSLPPMEFSLPNGVKMEVVGRIDRVDKAEDEN   959
NTDB id 120 BSU 10620 NP 388943.2              LLSSNRHYYVKEKLQKIVTRVSGILSEHAKASGFVPIGLEL..GFGGKGPLPPLTFQLKNGCTMELVGRIDRVDKAESSK   953
consensus                                      !!!!!!!*!*! !!! !* ! ! !! !!!! !!!!!* !!***! !! !*!!!* ! !*!!* !!*!!!!!!!!!!!

logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  GTFLRIIDYKSSSKALDLTEVYYGLALQMLTYLDVVTSNAQTWMKKGHAASPAGVLYFHIHNPIVEMKGDATEAEIEKEI  1039
NTDB id 120 BSU 10620 NP 388943.2              GLLLRIVDYKSSDKGLDLAEVYYGLALQMLTYLDLSITHSADWL..GMRATPAGVLYFHIHDPMIQSNLPLGLDEIEQEI  1031
consensus                                      !   !!!*!!!!! !*!!! !!!!!!!!!!!!!!!*  **   !***!* !*!!!!!!!!!! !**    *    !!! !!

logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  LKKFKMKGLVLGDADVVRLMDNKLSTGSSDIISAGLKKDGSFSARSSIASEQEFNVLQKYVHHTFENIGKDITEGVIDIA  1119
NTDB id 120 BSU 10620 NP 388943.2              FKKFKMKGLLLGDQEVVRLMDTTLQEGRSNIINAGLKKDGSLRSDSAAVGEKEFDLLTKHVRRTFQEAGEQITDGRVSIE  1111
consensus                                       !!!!!!!!*!!! *!!!!!!  !  ! ! !! !!!!!!!!    !    ! !! *! !*!**!!   !  !!*! * !
```

```
logo
NTDB id 1111167 ACOGJJ RS04360 WP 199630880.1  PYKMGNKAACTFCNFKSVCQFDESLEDNQFRSLKDMKDSEAMEKIREEVGGE...  1171
NTDB id 120 BSU 10620 NP 388943.2              PYKMKNKTPCTYCAFKSVCQFDESLEENEYRPLKAEKDKTILEWIKKEADGNEHS  1166
consensus                                      !!!! !! *!!*! !!!!!!!!!!!!*! *!*!!  !!   *! !* !  ! ***
```

X non conserved

X similar

X $\geq$ 50% conserved