```
logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  MVRVRKLVLAIAAASALSSGMAHALGLGEVTLQSSLNQPLVAEIELLEVRDLASNEVIPSLASPEEFVKAGVDRQYFLTDLKFTP   85
NTDB id 1196 PAKAF RS09365 WP 016253171.1  MVRLRTLVRAIAAASVLTSGMAHGLGLGEITLKSALNQPLDAEIELLEVRDLGSGEVIPSLASPEEFSKAGVDRLYYLTDLKFTP   85
consensus                                  !!!*! !! !!!!!! !*!!!!!*!!!!!*!! ! !!!!! !!!!!!!!!!!*! !!!!!!!!!!!! !!!!!! !*!!!!!!!!

logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  VLKPNGKSVIRVTSSKAVREPYLNFLVEVLWPNGRLLREYTLLLDPPLYSPQTTVAAAPQLPIAAPAPRPSVAPAPVPRSAAPAP   170
NTDB id 1196 PAKAF RS09365 WP 016253171.1  VVKPNGKSVIRVTSSKPVQEPYLNFLVQVLWPNGRLLREYTVLLDPPLYSPQAAAS.APQAPVSAPRA............TGAPR   157
consensus                                  !*!!!!!!!!!!!!!!*! !!!!!!!! !!!!!!!!!!!!!!*!!!!!!!!!!    *!!! !* !! ************* ****

logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  APRPAAPAPASRAISGNEYRTTANDTLWEIAQRVGG.GSSVNQTMLAIQDLNPDAFIGGNINRMKSGQVLRLPDEQQIRSRSNAE   254
NTDB id 1196 PAKAF RS09365 WP 016253171.1  APQAPAPVRTTAPAGSDTYRTVSNDTLWEIAQRNRTDRVSVPQAMLAFQELNPGAFVDGNINRLKSGQVLRIPTEQQMLERSPRE   242
consensus                                  !! **!! * * *     !!!  !!!!!!!!!!   *  !!*! !!! !*!!! !!* !!!!!*!!!!!!!*! !!!*  !!* !

logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  AVAQVAEQNAAWREGRAV.....ASRQLDATRRTTAGSAPATAESADSLKLVAAEAGQSTRGSDTGSANSKALADKLAVTQESLD   334
NTDB id 1196 PAKAF RS09365 WP 016253171.1  ALSQVQAQNQSWRGSRNPAAGSAGARQLDATQRNAAGSAPSKVDATDNLRLVSGEGKASKGADKGGKGDSKAIADTLAVTKESLD   327
consensus                                  !* !!  !!  !!  ! ******* !!!!!! !  !!!!!   *  ! !*!! *!*  !  *  ! * !!!*!! !!!! !!!!

logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  STRRENAELQSRVGDLQSQLDKLQRLVELKDSQLAKLQADLSAAPAAEEGATAQAPVTEPASQAPAAQPEAAPPAAEAATPPASP   419
NTDB id 1196 PAKAF RS09365 WP 016253171.1  STRRENEELQSRMQDLQSQLDKLQKLIQLKDAQLAKLQGQLGAEGQGAAQPNAALPD....A....SQPNAAAQ...APAQPGTP   401
consensus                                  !!!!!! !!!!!* !!!!!!!!!!*!* !!! !!!!!!* ! ! * *   * !  ! **** **** !! !!*****!* *!**!

logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  PEEAAPDY.NYSEEPAASVEDSAAANEQPAEEPAAAVEPAAPAKPAEDAK..PAAPSPA....PAPAPQSFIDDLMANPMTLGLA   497
NTDB id 1196 PAKAF RS09365 WP 016253171.1  A.VAAPTPAPAGEAPAA........PAQPPVA........PPPAPAAERPPAPAVPAPAPVQAAEQPAPSFLDELLANPLWLAVI   469
consensus                                  ** !!! ***  ! !!!********* !!*  *********!* !! * ***!! ! !!***** ****!!*!*!*!!!* !**

logo

NTDB id 160084 DW68 RS13890 WP 017363961.1  GGGALLLLLVALMALSRRNAMKEAELQDELADDLSQDQAFASDLDMPEDSLAGLD....DEPVATPVAGEERVTAQTGDALGEAD   578
NTDB id 1196 PAKAF RS09365 WP 016253171.1  GGSALLALLVLLMILSRRNAQKEKEEAQAFAADTGEEQEDALD..LGKDGFDDLTLDEPEPQVAAVAPQVEKTTAQTSDALGEAD   552
consensus                                  !! !!! !!! !! !!!!!! !! !     ! !   *!  ! !**** !    ! *******!! * *  !* !!!! !!!!!!!
```

```
logo
NTDB id 160084 DW68 RS13890 WP 017363961.1  IYIAYGRFNQAAELLQNAINDEPHRSDLRLKLMEVYAELGDREGFARQDNELREIGGATAEAEQLKSKYPAIAAFAGAGVVAAAA   663
NTDB id 1196 PAKAF RS09365 WP 016253171.1   IYIAYGRFNQAAELLQNAIYDEPQRTDLRLKLMEVYAEMGDREGFARQENELREIGGAQPQVEQLKSRYPAMVAVAAVAGLAGAK   637
consensus                                   !!!!!!!!!!!!!!!!!!! !!!*!*!!!!!!!!!!!!*!!!!!!!!!*!!!!!!!!!! *  !!!!!*!!!* ! !* * *!*!

logo
NTDB id 160084 DW68 RS13890 WP 017363961.1  SAEDDVDAFSLDDLSLDESVHAEKPVAASQDLDDAFDLSLDDLGGDLQNDLQSDSGDLDPLTLDSELDLGLSTEPD   KPVD   746
NTDB id 1196 PAKAF RS09365 WP 016253171.1   LAQDELDSFSLDDLSLDDSGHAAKPDAAGQDLDDAFDLSLDDLGGDDVQADLKSDSGALDDLTLDSDLDLAASTAAD....KPVD   718
consensus                                    ! !**! !!!!!!!!!** **  ! !!  !!!!!!!!!!!!! *! *  !! !  *   *!*!! *!! *    * **** * !

logo
NTDB id 160084 DW68 RS13890 WP 017363961.1  DLDFDLALGDDKVELSQ.PADDLSAFSLDLDEPAAASSDETDEFLLSLDDDTPLSQPADDLSGLSLDLPEETPAADLDLPADFDL   830
NTDB id 1196 PAKAF RS09365 WP 016253171.1   DLDFGLDFAELAETPSQPKHDDLGDFSLDLDAPEDKLS..DDDFLLSLNDEVPAAAPADNEFTLDTEAA...EEPALSLPDDFDL   798
consensus                                   !!!! !  **    *!!***!!!  !!!!!! !    !** !*!!!!! !* !   !!!    !  * ***** * ! !! !!!!

logo
NTDB id 160084 DW68 RS13890 WP 017363961.1  SLEDE..APVQPAVEPDSFAAQLDEVTAELDQLSNDFDEPQAPPLA..SV.DS..LSSDLDGDDDFDFLSGTDETATKLDLARAY   908
NTDB id 1196 PAKAF RS09365 WP 016253171.1   SLADEPTEPAAPEKGEDSFAAQLDEVSAQLDELASNLDEPKSATPSFSAEDAAVASALDGDADDDFDFLSGADEAATKLDLARAY   883
consensus                                   !! !!** !  !   *!!!!!!!!!!*! !! !    !!!  *** **  *  **   ! !*!!!!!!!!! !! !!!!!!!!!!

logo
NTDB id 160084 DW68 RS13890 WP 017363961.1  IDMGDTEGARDILDEVVAEGNDAQQQEAREMISKLV   944
NTDB id 1196 PAKAF RS09365 WP 016253171.1   IDMGDSEGARDILDEVLAEGNDSQQAEARELLERLA   919
consensus                                   !!!!!*!!!!!!!!!!*!!!!! !! !!!!** *!
```

X non conserved

X similar

X $\geq$ 50% conserved