```
logo
NTDB id 195111 BGM21 RS03760 WP 068894950.1  MTVEEKKAKKSLPLRSEIPVEETWRLEDIFPTDDAWEEEFKQVKAMIPKLGEYKGRLGESPEVLYEALQCQDDVSMRLGK   80
NTDB id 480 HSISS4 RS02090 WP 002890133.1    ..........MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEK   70
consensus                                    **********  * !****   !! !  !!*!!  !! !*     **!   ! !*! *!*  !  !  *   *  !! !

logo

NTDB id 195111 BGM21 RS03760 WP 068894950.1  LYTYAHMRYDQDTTNSFYQGLDARAKSLYSEASSAMAFIVPEILAIDEAVLRSFLEQYEPLRLYAHALDEITRQRPHVLS  160
NTDB id 480 HSISS4 RS02090 WP 002890133.1    IYVYASMKNDQDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLS  150
consensus                                    *! !!*!* !!!!!   !!   !*!  !!!  ! ! !*  !! *!*!*  !  ! !! **! !! !  * *  ***!!!!

logo

NTDB id 195111 BGM21 RS03760 WP 068894950.1  AEEEAILAQAAEVMQATSDTFSALNNADLTFPTIIDENGEEVEVTHGRFIRFLESTDRRVRRDAFYAVYHTYEKFQNTFA  240
NTDB id 480 HSISS4 RS02090 WP 002890133.1    QEAEELLAAAGDIFNGPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYA  230
consensus                                     ! ! *!! !*** ****!!!  ! !!!* !! * ! *!* !!*!!! !!  *!! !! *!* !* !*!*!!! !!*!*!

logo

NTDB id 195111 BGM21 RS03760 WP 068894950.1  NTLAGTVKKDNFFARIRRYRSAREAALDANNIPESVYDNLIAAIHEHLPLLHRYVRLRKRVLGLDELHMYDLYTPLVQEV  320
NTDB id 480 HSISS4 RS02090 WP 002890133.1    QTLQGVVKVHNYQAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSET.  309
consensus                                    *!! ! !! *!* !**!*! !!!*!!! !! !!!!!!! !*  ** !!!!!!!!* !!!*!!!!!!!*!!!*!!!!   *

logo

NTDB id 195111 BGM21 RS03760 WP 068894950.1  KMEVTYEEAKQYMLEGLAPLGEEYVAIVKEGLDNRWVDVRENKGKRSGAYSSGAYGTHPYILLNWQDNVNNLFTLVHEFG  400
NTDB id 480 HSISS4 RS02090 WP 002890133.1    ETALTYEESLKKAEEVLAIFGEEYSKGVHAAFTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETG  389
consensus                                      *!!!!       ! !!* !!!!   !* *   !!*!!**!!!!!!!!!! !!! !****!!!!!! * !!!!!!!! !

logo

NTDB id 195111 BGM21 RS03760 WP 068894950.1  HSVHSYYTRKTQPYPYAHYSIFVAEVASTCNEALLNDYLLRTIDDEKKRLYLLNHYLEGFRGTVFRQTMFAEFEHLIHLK  480
NTDB id 480 HSISS4 RS02090 WP 002890133.1    HSLHSTFTRQTQPYVYGDYPIFLAEIASTTNENILTETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEA  469
consensus                                    !!*!! *!! !!!!*!**!*!!*!!*!!!*!! *! * !!* * !*! !  *!!!!!*!!*!!!!!!! !!!!!! !!

logo

NTDB id 195111 BGM21 RS03760 WP 068894950.1  AQQGEALTAETLSALYYDLNKTYFGDDIVVDKEIGLEWARIPHFYYNYYVYQYATGFSAATALSKQILEEGEPAVRRYID  560
NTDB id 480 HSISS4 RS02090 WP 002890133.1    DASGQILTADFMNKLYADLNEKYYNLKAEDNYEIQFEWERIPHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAYLT  549
consensus                                      !  !!!* *  !! !!!  !*         !!  !! !!!!!! !!!!!!!!!!! !!* !   !**  !*    !*
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 195111 BGM21 RS03760 WP 068894950.1   FLKAGSSDYPIEVLKKAGVDMTSAEPIRQACQVFAEKLDEMERLLEK.....   607
NTDB id 480 HSISS4 RS02090 WP 002890133.1     YLKAGSSDYPLEVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
consensus                                     *!!!!!!!!!*!!*!!!!!!!!!  ***  !* !! **! !*! !*!!*****
```

X non conserved

X similar

X $\geq$ 50% conserved