```
logo
NTDB id 345037 Len3610 RS02350 WP 176446541.1  MAKATKELPKRSEIPEERKWKLDDIFATDEDWEQELKSLQNDLPAIEKFQGKLADSAQNLYDALQLQDELSERLGKLFTY   80
NTDB id 480 HSISS4 RS02090 WP 002890133.1      ......MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIYVY   74
consensus                                      ******  * !****!   ! !  !!!!! !!! !  !  *!!*    * !*! !!! !!  !  !   !  !! !** !

logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  AHMRSDQDTTNSTYQAMDAKAENVLTVASSTMSFIVPEILAMDESKLQNFLEEHEDLKFYEHVLDEISRQRPHVLSEKEE  160
NTDB id 480 HSISS4 RS02090 WP 002890133.1      ASMKNDQDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQEAE  154
consensus                                      !*!* !!!!!   !!   !!! !* *  !    *  !! *!*!* !!  ! ! ** !  !*!  * *  ***!!!!   !

logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  ALLAEASEPMSSASNTFGMLNNADLTFPSIKNENGEEVDLTHGRYIGFMQSTDRNVRKAAFKAMYETYGKFINTFASTLA  240
NTDB id 480 HSISS4 RS02090 WP 002890133.1      ELLAAAGDIFNGPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQTLQ  234
consensus                                       !!! ! **   ** !! *! !!!* !! *   *!* !*!!!! *!  ! ! !! *!!*!* !!! !!  ! *!*! !!

logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  GTVKADNFDAKVHHYDSARQAALDSNNIPEEVYDNLVEAVNERLPLLHRYQRLRKQVLAVDELHMYDVYAPLVENADMTF  320
NTDB id 480 HSISS4 RS02090 WP 002890133.1      GVVKVHNYQAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSETE.TAL  313
consensus                                      ! !! *!* !!!*!! !!!*!!!   ! !!! !!! !*! !! *!!!!!!!  !!! !!**!!!*!!!!! !! !   *

logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  SYEEAQKYVLEGLKPLGDDYVNVLKEGFGSRWIDVEESKGKRSGAYSSGAYGTHPYILLNWQDKLDDLFTLAHELGHSLH  400
NTDB id 480 HSISS4 RS02090 WP 002890133.1      TYEESLKKAEEVLAIFGEEYSKGVHAAFTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETGHSLH  393
consensus                                      *!!!  !   ! ! * !**!   ** *!  !!!!!** !!!!!!!!! !!! !****!!!!!! !! !!!! !! !!!!!

logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  SYYTHKHQQFRYGNYSIFVAEVASTTNEALLNDYLLNNVDDEKEKLYLLNHFLEGFRGTVFRQTMFAEFEHEIHKRAQNG  480
NTDB id 480 HSISS4 RS02090 WP 002890133.1      STFTRQTQPYVYGDYPIFLAEIASTTNENILTETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEADASG  473
consensus                                      !  *!* *!** !!  !*!!*!!*!!!!!! *! * !!   ! !*! *  *!!!*!*!!*!!!!!!! !!!!!! !!     !

logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  EALTAENLTAIYHDLNKKYYGDDVVSDDEIGKEWARIPHFYMNYYVYQYATGYSAATTLADKILNGEEGAVDRYLDYLKA  560
NTDB id 480 HSISS4 RS02090 WP 002890133.1      QILTADFMNKLYADLNEKYYNLKAEDNYEIQFEWERIPHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAYLTYLKA  553
consensus                                        !!!* *  *!*!!! !!!         !!  !! !!!!!!!!!!!!!!!!!!* !!* !!*!!**! !   * !! !!!!
```

```
logo

NTDB id 345037 Len3610 RS02350 WP 176446541.1  GSSDYPIEVLKKAGVDMTSKEPILSALDVFEEKLNEMEKLLLNE....   604
NTDB id 480 HSISS4 RS02090 WP 002890133.1      GSSDYPLEVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
consensus                                      !!!!!!*!!*!!!!!!!!  ***  !  !!!**! !*! !*   ****
```

X non conserved

X similar

X $\geq$ 50% conserved