```
logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  MSEQNKAKALPDRNEIEEASTWRLEDIFQTDAEWEKEFQAIKELLPKLTEFKGKLGDSADNLLEALQYEDEISMRLGKLY   80
NTDB id 480 HSISS4 RS02090 WP 002890133.1    ........MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIY   72
consensus                                    ********  * ! **!!  !! !  !! !!!*!! !*     !*! * * !*! !!! !!! !      *  !! !*!

logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  TYAHMRYDQDTTNSVYQALNDRATNLYSQVSSSTAYIVPEILSISEDTLQTFLKENRDLSVYEHALEEITRQRPHVLSEA  160
NTDB id 480 HSISS4 RS02090 WP 002890133.1    VYASMKNDQDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQE  152
consensus                                     !!*!* !!!!!  *!!  * *!*!!!!!*!   !!  !! * * *  !  !    * ! *!*!  ! *  ***!!!!

logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  EEALLAEASEVMSSSSNTFGMLNNADLKFPSIKGEDGEEIEITHGRYIQFLESDDPRVRKDAFKAVYETYGKFKNTFAST  240
NTDB id 480 HSISS4 RS02090 WP 002890133.1    AEELLAAAGDIFNGPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQT  232
consensus                                     ! !!! ! **   ** !! *! !!!* !! *    !* *!*!!! *!  *!! !* *!! !* !*! !!  ! *!*! !

logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  LSGAVKRNNFNARVRKYDSARQAALSNNNIPEAVYDQLVETVNDNLHLLHRYIDIRKRALGLDELHMYDLYTPLVPEVKM  320
NTDB id 480 HSISS4 RS02090 WP 002890133.1    LQGVVKVHNYQAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSET.ET  311
consensus                                    ! ! !! *!**!*!!*! !!!*!!!  ! !!! !!! !*!*!! *! !!!!!*!*!!* !!!!!!*!!!*!!!! * *

logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  NVKYEEAQDLLLKSLNVLGDEYVDILKEAYENRWVDVYENKGKRSGAYSSGAYGTNPYILMNWHDNVNNLFTLAHEFGHS  400
NTDB id 480 HSISS4 RS02090 WP 002890133.1    ALTYEESLKKAEEVLAIFGEEYSKGVHAAFTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETGHS  391
consensus                                     * !!!          ! * !*!!   ** !*  !!*!!**!!!!!!!!!! !!! !!***!*!!*! * !!!!! !! !!!

logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  VHSYYTRKTQPHVYGDYSIFVAEVASTCNEALLNDYLLKTTEDKKERLYLLNHYLEGFRGTVFRQTMFAEFEHIIHKKVQ  480
NTDB id 480 HSISS4 RS02090 WP 002890133.1    LHSTFTRQTQPYVYGDYPIFLAEIASTTNENILTETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEADA  471
consensus                                    *!! *!! !!!*!!!!!*!!*!!*!!!*!! *! * !!!   ! ! !  *!!!!!*!!*!!!!!!! !!!!!! !!

logo
NTDB id 379424 FED50 RS08160 WP 000003348.1  EGHAVTPDMLTEIYYDLNKKYFGDALVIDEEIGLEWSRIPHFYYNYYVYQYATGFSAATALSKQILEEGQPAVERYINEF  560
NTDB id 480 HSISS4 RS02090 WP 002890133.1    SGQILTADFMNKLYADLNEKYYNLKAEDNYEIQFEWERIPHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAY.LTY  550
consensus                                     !* *!*! *  *! !!! !!*        !!  !! !!!!!! !!!!!!!!!!! !!* !   !**   *  ! !*  *
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logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 379424 FED50 RS08160 WP 000003348.1  LKAGSSDYPIEVLKKAGVDMASPEPVKEALQVFEEKLNELEALLFEEK...   608
NTDB id 480 HSISS4 RS02090 WP 002890133.1    LKAGSSDYPLEVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
consensus                                    !!!!!!!!!*!!*!!!!!!!  ****  !  !!!**! !!!!!*    ***
```

X non conserved

X similar

X $\geq$ 50% conserved