```
logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  MSESKKLPKRNEVPSEWTWDLEVVFKSDDDFTLSYKELETKVKTVVSYKGTLNEGSKSFLKAIQAILDLSNQLETIYVYAQLKND   85
NTDB id 480 HSISS4 RS02090 WP 002890133.1  .....MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIYVYASMKND   80
consensus                                  *****  * ! ***  *!!!!  *! *! !*   !       *!   ! !*! *  ! ! !   * !   !! !!!!! *!!!

logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  QDTTNSTYQGMYEQATKLATQANEAISWFEPEVLELSEETLARYFNENDDLAIYKHFIDQLTAARKHVLSANEEALLAGAGEIFN  170
NTDB id 480 HSISS4 RS02090 WP 002890133.1  QDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQEAEELLAAAGDIFN  165
consensus                                  !!!!   !!      !* ! *!  !!  *!!!! * ! *  !! *    * !**! !* * ! ! * !!!!   ! !!!*!!*!!!

logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  ASSRTFNILNNADITFPTIKDENGNDIQLSHGVYGQLMESTDRSVREAAFKNLYKVYDGLQNTFSSTLSSHVKYHNYNAKVHHYD  255
NTDB id 480 HSISS4 RS02090 WP 002890133.1  GPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQTLQGVVKVHNYQAKVRHYN  250
consensus                                  *** !!!*! !!!! !! * ! *!  * !*!! *  !!!! !! *! *!*  *!  !*  !*!*  !!  *!! !!!*!!!*!!

logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  SAREKALSSNHIPESVYDTLLDVVHEHLPLLHRYVALRKELLNVEELHMYDMYTPISGEAGIKYTYEEAEAETMKALKPLGEEYL  340
NTDB id 480 HSISS4 RS02090 WP 002890133.1  SARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSETE.TALTYEESLKKAEEVLAIFGEEYS  334
consensus                                  !!!* !!  !*!!!!!!!*!!* !* !!!!!!!!* !!! *! **!!*!!!*!!!*!   *   !!!!        ! * !!!!

logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  SVLKKAFNNRWIDVMENEGKRSGAYSSGAYETNPYILLNWHDSLNHLYTLVHELGHSVHSYYTRTNQPYVYGDYSIFLAEIASTT  425
NTDB id 480 HSISS4 RS02090 WP 002890133.1  KGVHAAFTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETGHSLHSTFTRQTQPYVYGDYPIFLAEIASTT  419
consensus                                    ** !!  !!!!!**! !!!!!!!! !!!*!!***!!!!*!*! *!*!!!!! !!!*!! *!!  !!!!!!!!*!!!!!!!!!!

logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  NENILTDYLLETQKDPKVRAYVLNHYLDGFKGTIFRQTQFAEFEHFIHEEAAKGTPLTSEFLNNYYGELNARYYGPDVEKDPEIA  510
NTDB id 480 HSISS4 RS02090 WP 002890133.1  NENILTETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEADASGQILTADFMNKLYADLNEKYYNLKAEDNYEIQ  504
consensus                                  !!!!!!* !!    !!*! !  *!!!!!!!!!!!*!!!!!!!!!!! !!!   ! ! *!! *!*!   !**!! *!! *   !   *!!

logo
NTDB id 63094 Q783 RS03315 WP 023177325.1  LEWTRIPHFYYNYYVYQYSTGFSAATALADKIVKDEDRALDNYLTYLKSGNSDYPIEVMKKAGVDMTEKTYIEDAMKVFETRLNE  595
NTDB id 480 HSISS4 RS02090 WP 002890133.1  FEWERIPHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAYLTYLKAGSSDYPLEVIKKAGVDMTNTDYLDAAFKVFEDRLVE  589
consensus                                   !! !!!!!! !!!!!!! !!! !!* !!*!!!*  *   * !!!!!! ! !!!!*!!*!!!!!!!!   !** ! !!!! !! !
```

```
logo

NTDB id 63094 Q783 RS03315 WP 023177325.1  LEELIETLKD..   605
NTDB id 480 HSISS4 RS02090 WP 002890133.1  LEALVEKGVHLS   601
consensus                                  !! !*!    ***
```

X non conserved

X similar

X $\geq$50% conserved