```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  MAQETKTNTLPSRSEIAPEDTWRLEDIFATEEDWEAAFKAVKEDLKKAEAHKGTLGESAEKLFAALQLQDEVFEKLGKVY  80
NTDB id 480 HSISS4 RS02090 WP 002890133.1    .........MSDNRTHLEFKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIY  72
consensus                                    ********  * !*** *  !! !  !!!!* !!!  *     !!!!! !* !*! *!! !  *!  !   *  *! !*!
```

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  SYSHMRNDQDTTNPFYQGMEDRAKALYAQAAAAFSYMVPELLSIDESKVEGFLEEKEELKLYKHSLEEINLQRPHILSAE  160
NTDB id 480 HSISS4 RS02090 WP 002890133.1    VYASMKNDQDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQE  152
consensus                                     ! *!*!!!!!! * !!    *!  !! !  !! !  !! * *!* !*  ! !  * ! !! !  ! *  ***!*!! !
```

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  QEELLAQASEVLDASGNTFGMLNNADLKFPTIKDEEGNEVEITHGRYIRFLESEDRRVREEAFKGVYSKYGEFRNTFAST  240
NTDB id 480 HSISS4 RS02090 WP 002890133.1    AEELLAAAGDIFNGPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQT  232
consensus                                     !!!!! ! **  **  !! *! !!!* !! * !  !  !!*!!! *!  *!! !! *!  !* **!  !  ! *!*! !
```

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  LSGEVKNHNFNATVRKYDSARQAALSNNNIPETVYDNLVKTVNDNLPLLHRYLDLRKKVLELDELHMYDLFTPLVKEVKM  320
NTDB id 480 HSISS4 RS02090 WP 002890133.1    LQGVVKVHNYQAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSET.ET  311
consensus                                    ! ! !! !!**! !!*! !!!*!!!  ! !!!*!!! !* *!! *!!!!!!!!!!!!!!!! !!!!*!!!**!!!    *
```

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  DVTYDEAKDYVLKGLAPLGEDYLNVLKEGFENRWVDVHENKGKRSGAYSSGTYGTNPYILMNWQNNVNNLFTLVHEFGHS  400
NTDB id 480 HSISS4 RS02090 WP 002890133.1    ALTYEESLKKAEEVLAIFGEEYSKGVHAAFTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETGHS  391
consensus                                     *!!*!         !!* !!*!   ** *!  !!*!!!*!!!!!!!!!!! ! !  !!***!*!!!  *  !!!!!!!! !!!
```

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  VHSYYTRKHQPYPYGNYSIFVAEVASTCNENLLNDYLLNSIEDEKKRIYLLNHYLEGFRGTLFRQTMFAEFEHTIHLKSQ  480
NTDB id 480 HSISS4 RS02090 WP 002890133.1    LHSTFTRQTQPYVYGDYPIFLAEIASTTNENILTETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEADA  471
consensus                                    *!! *!! *!!!*!! !*!!*!!*!!!*!!!*! * !!   * !*! !  *!!!!!*!!*!!*!!!! !!!!!! !!
```

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1  NGEALTADMLTKEYYELNKKYFGENVTIDEEIGLEWARIPHFYNYYVYQYATGISAATALSKQILEEGEPAVKRYLEFL  560
NTDB id 480 HSISS4 RS02090 WP 002890133.1    SGQILTADFMNKLYADLNEKYYNLKAEDNYEIQFEWERIPHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAYLTYL  551
consensus                                     !  !!!! * ! ! *!! !!*          !!  !! !!!!!! !!!!!!!!!!  !!* !   !**  !*    !! *!
```

logo

```
NTDB id 298840 DOZ91 RS09490 WP 054397173.1   KSGSSDYPIEVLKKAGVDMTKAEPVQEAMNVFEEKLNELEELLNK.....   605
NTDB id 480 HSISS4 RS02090 WP 002890133.1     KAGSSDYPLEVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
consensus                                     ! !!!!!!*!!*!!!!!!!!   ***  !  !!!**! !!! !* !*****
```

X non conserved

X similar

X ≥ 50% conserved