```
logo

NTDB id 30010 SPH RS05230 WP 000244135.1   MVLQRNEINEKDTWDLSTIYPTDQAWEEALKDLTEQLETVAQYEGHLLDSADNLLEITEFSLEMERQMEKLYVYAHMKNDQDTRE   85
NTDB id 480 HSISS4 RS02090 WP 002890133.1  MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIYVYASMKNDQDTTV   85
consensus                                  !  *! ** !! !!!!*!!**!!  !!         !   ! !!!!!!! !!!  !!  * * ! *!!*!!!!*!!!!!!!

logo

NTDB id 30010 SPH RS05230 WP 000244135.1   AKYQEYYAKAMTLYSQLDQAFSFYDPEFMEISEKQYADFLEAQPKLQVYQHYFDKLLQGKDHVLSQREEELLAGAGEIFGSASET   170
NTDB id 480 HSISS4 RS02090 WP 002890133.1  GLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQEAEELLAAAGDIFNGPTDT   170
consensus                                  * !!!! !!!  !!!!!  !! ***!!!! * *!  !*! !  ! ! *! !!!**!!  !!!!!!!  !!!!!*!!*!!  ***!

logo

NTDB id 30010 SPH RS05230 WP 000244135.1   FAILDNADIVFPYVLDDDGKEVQLSHGTYTRLMESKKREVRRGAYQALYATYEQFQHTYAKTLQTNVKVQNYRAKVRNYKSARHA   255
NTDB id 480 HSISS4 RS02090 WP 002890133.1  FNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQTLQGVVKVHNYQAKVRHYNSARHA   255
consensus                                  ! *!!!!!!*!!*! !  !  ! !*!! *  !!!!! !**!*!!! !*!*!!!!!!!!!! !!!  !!!*!! !!!!*! !!!!!

logo

NTDB id 30010 SPH RS05230 WP 000244135.1   ALAANFVPESVYDNLVAAVRKHLPLLHRYLELRSKILGISDLKMYDVYTPLSSVEYSFTYQEALKKAEDALAVLGEDYLSRVKRA   340
NTDB id 480 HSISS4 RS02090 WP 002890133.1  ALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSETETALTYEESLKKAEEVLAIFGEEYSKGVHAA   340
consensus                                  !!!!!!*!!!!!! !*  ! !!!!!!!!!!*!! !*!!* *!!!!!!!!!!!  !   !! ! !!!!!* !!* !!*!   !* !

logo

NTDB id 30010 SPH RS05230 WP 000244135.1   FSERWIDVYENQGKRSGAYSGGSYDTNAFMLLNWQDNLDNLFTLVHETGHSMHSSYTRETQPYVYGDYSIFLAEIASTTNENILT   425
NTDB id 480 HSISS4 RS02090 WP 002890133.1  FTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETGHSLHSTFTRQTQPYVYGDYPIFLAEIASTTNENILT   425
consensus                                  !*!!!!!!**! !!!!!!!!!! !!!!!!!!!!!!! !!!!!!!!!!!!!!*!!**!! !!!!!!!!!*!!!!!!!!!!!!!!!!

logo

NTDB id 30010 SPH RS05230 WP 000244135.1   EKLLEEVEDDATRFAILNNFLDGFRGTVFRQTQFAEFEHAIHQADQNGEVLTSDFLNKLYADLNQEYYGLSKEDNPEIQYEWARI   510
NTDB id 480 HSISS4 RS02090 WP 002890133.1  ETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEADASGQILTADFMNKLYADLNEKYYNLKAEDNYEIQFEWERI   510
consensus                                  ! !! !! !! !!!!!!!**!!!!!*!!!!!!!!!!!!!!!!! !!   ! *!! !!*!!!!!!!!  !! !  !!!*!!!*!! !!

logo

NTDB id 30010 SPH RS05230 WP 000244135.1   PHFYYNYYVYQYSTGFAAASALAEKIVHGSQEDRDRYIDYLKAGKSDYPLNVMRKAGVDMEKEDYLNDAFAVFERRLNEFEALVE   595
NTDB id 480 HSISS4 RS02090 WP 002890133.1  PHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAYLTYLKAGSSDYPLEVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVE   595
consensus                                  !!!! !!!!!!! !!!!!!! !!!!!!!!* !!** !* !!!!! !!!!! !**!!!!!!   !!!  !! !!! !! ! !!!!!
```

```
logo

NTDB id 30010 SPH RS05230 WP 000244135.1      KLGLA.   600
NTDB id 480 HSISS4 RS02090 WP 002890133.1     KGVHLS   601
consensus                                     !  * *
```

X non conserved

X similar

X $\geq$50% conserved