```
logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  MTDNRSHLEEKYTWDLSTIFATDKDWEAEVSDLATEIDAAKDFSGHLLDSSANLLTITDTYLELARRVEKVYVYAHMKND   80
NTDB id 480 HSISS4 RS02090 WP 002890133.1        MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIYVYASMKND   80
consensus                                        !*!!!*!!!!!!!!!!*!!!!!! !!! !      **   !  * !!!!!!  !!!  !* !* ! !!*!!*!!!!*!!!!

logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  QDTTVAKYQEYQAKASGLYAKFSEVFSFYDPEVMALSQEDYQAFLAETPDLKRYHHFFDKLFQTRDHVLSQAEEELLAGA  160
NTDB id 480 HSISS4 RS02090 WP 002890133.1        QDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQEAEELLAAA  160
consensus                                        !!!!!* !!!!!!!!!! !!   !! ! ***!! !!!       !    ! !  !*!*!**!   *!!!!!!  !!!!!*!

logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  QEIFNGAEETFSILDNADIVFPVVKNDKGEDVELTHGNFISLMESKDRSIRQAAYEAMYSTYEQFQHTYAKTLQTNVKVQ  240
NTDB id 480 HSISS4 RS02090 WP 002890133.1        GDIFNGPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQTLQGVVKVH  240
consensus                                         *!!!!* *!! *!!!!!!*!! !    !* !!!!!!!!!*!!!!!!! !! *!!!!!! !!!!!!!!!! !!!   !!!*

logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  NYKARVHKYDSARQAAMAANFIPEAVYDTLLETVNKHLPLLHRYLKLRQEVLGLDDLKMYDVYTPLSETDLAIGYDEALE  320
NTDB id 480 HSISS4 RS02090 WP 002890133.1        NYQAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSETETALTYEESLK  320
consensus                                        !! !*!**! !!!*!!*!!!!!!! !!!*!!!*!!!!!!!!!!!!! !!  !!!!!*!!!!!!!!!!!!!* !* !*! !

logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  KAEKVLAVFGKDYADRVHRAFTERWIDVHVNKGKRSGAYSGGSYDTNAFMLLNWQDTLDNLYTLVHETGHSLHSTFTRET  400
NTDB id 480 HSISS4 RS02090 WP 002890133.1        KAEEVLAIFGEEYSKGVHAAFTERWIDVHPNKGKRSGAYSGGAYDTNAFMLLNWQDTLDNLFTLVHETGHSLHSTFTRQT  400
consensus                                        !!! !!!*!! *!   !! !!!!!!!!!!*!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!*!!!!!!!!!!!!!!! !

logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  QPYVYGDYSIFLAEIASTTNENIMTEALLNEVQDEKERFAILNHYLDGFRGTVFRQTQFAEFEHAIHQADQKGEVLTSEY  480
NTDB id 480 HSISS4 RS02090 WP 002890133.1        QPYVYGDYPIFLAEIASTTNENILTETLLKEVKDDKTRFAILNHYLDGFKGTVFRQTQFAEFEHAIHEADASGQILTADF  480
consensus                                        !!!!!!!!*!!!!!!!!!!!!!!!*!! !! !! !*! !!!!!!!!!!!!*!!!!!!!!!!!!!!!! !!   ! *!! **

logo
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  LNQLYADLNEKYYGLSKKDNHFIQYEWARIPHFYYNYYVYQYATGFAAASYLADKIVHGTQDDIDHYLAYLKSGNSDYPL  560
NTDB id 480 HSISS4 RS02090 WP 002890133.1        MNKLYADLNEKYYNLKAEDNYEIQFEWERIPHFYMNYYVYQYATGFAAASYLAEKIVHGTEEDKEAYLTYLKAGSSDYPL  560
consensus                                        *! !!!!!!!!!! !   !!* !!*!! !!!!!! !!!!!!!!!!!!!!!!!!!!*!!!!!! *! **!! !!! ! !!!!!
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logo
                                                  EVIKKAGVDMTNTDYLEAAFKVFEERLYELEXLVSKGYHLS
NTDB id 317809 MGAS28085 RS03565 WP 011054652.1  EVIAKAGVDMAKGDYLEAAFKVFDERLTELEVLVSKGIHKS   601
NTDB id 480 HSISS4 RS02090 WP 002890133.1        EVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
consensus                                        !!! !!!!!!   !!!*!!!!!!**!! !!! !! !!*! !
```

X non conserved

X similar

X $\geq$ 50% conserved