```
logo

NTDB id 1131991 H1W80 RS02300 WP 011226924.1  MSDNRCHLEEKYTWDLTTIFATDADWETEYESIVQDLKKASSFAGHLLDSAKNLLEATELYMSLMRRLEKIYVYASMKND   80
NTDB id 480 HSISS4 RS02090 WP 002890133.1     MSDNRTHLEEKYTWDLTTIFATDADWETEYESTVQDLKKASAYAGHLLDSAKNLLGATELYMSLMRRLEKIYVYASMKND   80
consensus                                     !!!!!*!!!!!!!!!!!!!!!!!!!!!!!!!!! !!!!!!!! *!!!!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!!!!!!

logo

NTDB id 1131991 H1W80 RS02300 WP 011226924.1  QDTTVGLYQEYNAKASNLYSQLSEAFAYFEPEFMALEAEKLVSFKEQEPGLGLYDHYFERLLANKDHVLSQEAEELLAAA  160
NTDB id 480 HSISS4 RS02090 WP 002890133.1     QDTTVGLYQEYQAKASNLYSQLSEAFAYFEPEFMALDDKKLAEFKEQEPGLGLYDHYFERLLANKDHVLSQEAEELLAAA  160
consensus                                     !!!!!!!!!!!*!!!!!!!!!!!!!!!!!!!!!!!!!* !! !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

logo

NTDB id 1131991 H1W80 RS02300 WP 011226924.1  GDIFNGPTDTFNVLDNADILFPWVSDGQGDVIELTHGNFITLMESKNREVRKGAYEAMYRTYEQFQHTYAQTLQGVVKVH  240
NTDB id 480 HSISS4 RS02090 WP 002890133.1     GDIFNGPTDTFNVLDNADILFPWVSDGQGDVVELTHGNFITLMESKDRDIRKGAYEAMYGTYEQFQHTYAQTLQGVVKVH  240
consensus                                     !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!*!!!!!!!!!!!!!! !**!!!!!!!!!! !!!!!!!!!!!!!!!!!!!!!

logo

NTDB id 1131991 H1W80 RS02300 WP 011226924.1  NYMAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLELDKLKMYDVYAPLSETETALTYEEALK  320
NTDB id 480 HSISS4 RS02090 WP 002890133.1     NYQAKVRHYNSARHAALAANFIPESVYDSLLESVNKHLPLLHRYLDLRKKVLGLDELKMYDVYTPLSETETALTYEESLK  320
consensus                                     !! !!!!!!!!!!!!!!!!!!!!
```

```
logo                                                  EVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS
NTDB id 1131991 H1W80 RS02300 WP 011226924.1          EVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
NTDB id 480 HSISS4 RS02090 WP 002890133.1             EVIKKAGVDMTNTDYLDAAFKVFEDRLVELEALVEKGVHLS   601
consensus                                             !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!
```

X non conserved
X similar
X $\geq$ 50% conserved