```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1     MAGVNKVIIVGNLGNDPDMRTMPNGDAVATLSVATSESWNDKMTGERREVTEWHRIVFFRRQAEVAGQYLRKGSKVYVEG   80
NTDB id 624 LCA RS00040 WP 011373726.1        ..MINRVVLVGRLTRDVDLRYTSSGAAVGTFSMAVNRQFTNANG.D..READFINCVIWRKSAENFANFTKKGSLVGVDG   75
NTDB id 112 BSU 36310 NP 391512.2             ..MFNQVMLVGRLTKDPDLRYTSAGAAVAHVTLAVNRSFKNASG.E..IEADYVNCTLWRKTAENTALYCQKGSLVGVSG   75
NTDB id 305369 DWB98 RS12600 WP 107539254.1   ..MINRVVLVGRLTKDPEYRTTPSGVSVATFTLAVNRTFTNAQG.E..READFINCVVFRKQADNVNNYLFKGSLAGVDG   75
NTDB id 113 BSU 40900 NP 391970.1             ..MLNRVVLVGRLTKDPELRYTPNGAAVATFTLAVNRTFTNQSG.E..READFINCVTWRRQAENVANFLKKGSLAGVDG   75
consensus                                       **!*!**!!*!**!***!***  !**!*****!********  *  *  *********!*!**!**  *****!!!***!*!
```

```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1     KLKTRKWQDQNGQDRYTTEIQGDVLQMLDSRSSGGDFG................GNQGSGWNQAPAQTNYNQGGYSDNYA   144
NTDB id 624 LCA RS00040 WP 011373726.1        RLQTRNYENQQGQRVYVTEVVVDNFSLLESRTTTEQRQGDGA.......SQNFNSNQSNGSQQS.........GFTSPQ.   138
NTDB id 112 BSU 36310 NP 391512.2             RIQTRSYENEEGVNVYVTEVLADTVRFMDPKPREKAAD.........................................   113
NTDB id 305369 DWB98 RS12600 WP 107539254.1   RIQSRSYENQEGRRVFVTEVVCDSVQFLEPKNQNQRHGQEGNNN.....FQNFGGQQS.GQNTS.........SYQNNNN   140
NTDB id 113 BSU 40900 NP 391970.1             RLQTRNYENQQGQRVFVTEVQAESVQFLEPKNGGGSGS.GGYNEGNSGGGQYFGGG....QNDN.........PFGGNQ.   140
consensus                                     ****!  *****!*****!!*************          *          * *  ***   * *            *   **
```

```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1     QNNNFNGGNATRPQPAQKPAAQAEPPMDNFDDDIPF   180
NTDB id 624 LCA RS00040 WP 011373726.1        ....QTGNAPAANNTQADPFANNGQAIDISDDDLPF   170
NTDB id 112 BSU 36310 NP 391512.2             ......................................   113
NTDB id 305369 DWB98 RS12600 WP 107539254.1   N.NNNNNNNTSNNNQSDNPFANANGPIDISDDDLPF   175
NTDB id 113 BSU 40900 NP 391970.1             ....NNQRRNQGNSFNDDPFANDGKPIDISDDDLPF   172
consensus                                         **       **     ****    ***********
```

X non conserved

X similar

X $\geq$ 50% conserved