```
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 38522 LM1816 RS00270 WP 003721668.1   ..MMNRVVLVGRLTKDPELRYTPAGVAVATFTLAVNRTFTNQQG.E..READFINCVVWRKPAENVANFLKKGSMAGVDG   75
NTDB id 113 BSU 40900 NP 391970.1             ..MLNRVVLVGRLTKDPELRYTPNGAAVATFTLAVNRTFTNQSG.E..READFINCVTWRRQAENVANFLKKGSLAGVDG   75
consensus                                       **!*!**!!*!**!***!***  !*!!*****!*******  * *  *********!*!* !!* *****!!!***!*!
```

```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1     KLKTRKWQDQNGQDRYTTEIQGDVLQMLDSRSSGGDFGGNQGSGWNQAPAQTNYNQGGYS..DNYAQNNNFNGG.....N   153
NTDB id 624 LCA RS00040 WP 011373726.1        RLQTRNYENQQGQRVYVTEVVVDNFSLLESRTTTEQRQGDGASQNF....NSNQS........NGSQQSGFTSPQQTGNA   143
NTDB id 112 BSU 36310 NP 391512.2             RIQTRSYENEEGVNVYVTEVLADTVRFMDPKPREKAAD.........................................   113
NTDB id 38522 LM1816 RS00270 WP 003721668.1   RVQTRNYEGNDGKRVYVTEIVAESVQFLEPRNSNGGGGNNYQSGNN....NNNYNSGGNNFGQAPTNNGGFGQDQQQSQN   151
NTDB id 113 BSU 40900 NP 391970.1             RLQTRNYENQQGQRVRVTEVQAESVQFLEPKNGGGSGSGGYNEGNS....GG.....GQYFGG.GQNDNPFGGNQNNQRR   145
consensus                                     ***!!******!*****!!************* * * * *   ***     * *    *        **  *   **
```

```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1     ATRPQPAQKPAAQAEPPMDNFDDDIPF   180
NTDB id 624 LCA RS00040 WP 011373726.1        PAANNTQADPFANNGQAIDISDDDLPF   170
NTDB id 112 BSU 36310 NP 391512.2             ............................   113
NTDB id 38522 LM1816 RS00270 WP 003721668.1   QNYQSTNNDPFASDGKPIDISDDDLPF   178
NTDB id 113 BSU 40900 NP 391970.1             NQGNSFNDDPFANDGKPIDISDDDLPF   172
consensus                                        *  * ***** * ***********
```

X non conserved

X similar

X $\geq$ 50% conserved