```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1        MAGVNKVIIVGNLGNDPDMRTMPNGDAVATLSVATSESWNDKMTGERREVTEWHRIVFFRRQAEVAGQYLRKGSKVYVEG   80
NTDB id 113 BSU 40900 NP 391970.1                ..MLNRVVLVGRLTKDPELRYTPNGAAVATFTLAVNRTFTNQS.GE..READFINCVTWRRQAENVANFLKKGSLAGVDG   75
NTDB id 112 BSU 36310 NP 391512.2                ..MFNQVMLVGRLTKDPDLRYTSAGAAVAHVTLAVNRSFKNAS.GE..IEADYVNCTLWRKTAENTALYCQKGSLVGVSG   75
NTDB id 126459 NCDO2118 RS11990 WP 003131953.1  ..MINNVVLVGRITRDPELRYTPQNQAVATFSLAVNRQFKNAN.GE..READFINCVIWRQQAENLANWAKKGALIGVTG   75
NTDB id 624 LCA RS00040 WP 011373726.1           ..MINRVVLVGRLTRDVDLRYTSSGAAVGTFSMAVNRQFTNAN.GD..READFINCVIWRKSAENFANFTKKGSLVGVDG   75
consensus                                          **!*!**!!****!***!******!!*****!***** **  !*  **********!**!!* *** *!!****!*!
```

```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1        KLKTRKWQDQNGQDRYTTEIQGDVLQMLDSRSSGGDFGGNQGSGWNQAPAQTNYNQGGYSDNYAQNNNFNGGNATRPQPA  160
NTDB id 113 BSU 40900 NP 391970.1                RLQTRNYENQQGQRVFVTEVQAESVQFLEPKNGGGSGSGGYNEGNSGGGQYFGGGQNDNPF...GGNQNNQRRNQGNSFN  152
NTDB id 112 BSU 36310 NP 391512.2                RIQTRSYENEEGVNVYVTEVLADTVRFMDPKPREKAAD.........................................  113
NTDB id 126459 NCDO2118 RS11990 WP 003131953.1  RIQTRNYENQQGQRVYVTEVVADSFQMLESRSAREGMGGGTSAGSYSAPSQS...TNNTP....RPQTNNNNATPNFGRD  148
NTDB id 624 LCA RS00040 WP 011373726.1           RLQTRNYENQQGQRVYVTEVVVDNFSLLESRTTTEQRQGDGASQNFNSNQSNGSQQSGFT....SPQQT.GNAPAANNTQ  150
consensus                                        ***!!******!*****!!*************       *    *   *        *          ** *
```

```
logo
NTDB id 1390 A4U84 RS00055 WP 021115958.1        QKPAAQAEPPMDNFDDDIPF   180
NTDB id 113 BSU 40900 NP 391970.1                DDPFANDGKPIDISDDDLPF   172
NTDB id 112 BSU 36310 NP 391512.2                ......................  113
NTDB id 126459 NCDO2118 RS11990 WP 003131953.1  ADPFG..SSPMEISDDDLPF   166
NTDB id 624 LCA RS00040 WP 011373726.1           ADPFANNGQAIDISDDDLPF   170
consensus                                         *****   ***********
```

X non conserved

X similar

X $\geq$ 50% conserved