```
logo
NTDB id 1103 NMB RS07590 WP 002212976.1        ...MSLNKVILIGRLGRDPEVRYMPNGEAVCNFSVATSETWNDR.NGQRVERTEWHNITMYRKLAEIAGQYLKKGGLVYL   76
NTDB id 1131 NGFG RS05740 WP 003695064.1       ...MSLNKVILIGRLGRDPEVRYMPNGEAVCNFSVATSETWNDR.NGQRVERTEWHNITMYRKLAEIAGQYLKKGGLVYL   76
NTDB id 1390 A4U84 RS00055 WP 021115958.1      ..MAGVNKVIIVGNLGNDPDMRTMPNGDAVATLSVATSESWNDKMTGERREVTEWHRIVFFRRQAEVAGQYLRKGSKVYV   78
NTDB id 172619 DSM2777 RS05440 WP 043488863.1 MASRGVNKVILVGNLGQDPEVRYMPNGGAVANITLATSETWRDKQTGEQKEKTEWHRVVLFGKLAEVAGEYLRKGSQVYI   80
NTDB id 1166 A1552VC RS00795 WP 000168289.1   MASRGVNKVILIGNLGQDPEVRYMPSGGAVANITIATSETWRDKATGEQKEKTEWHRVTLYGKLAEVAGEYLRKGSQVYI   80
consensus                                         **!!!!**!*!!*!!**!*!!*!*!!*****!!!!*!*!* *!***!*!!!!********!!*!!*!!*!!* !!*
```

```
logo
NTDB id 1103 NMB RS07590 WP 002212976.1        EGRIQSRKYQGKDGIERTAYDIV....ANEMKMLGGRNENSGGAPYEEG........YGQSQE..AYQRPAQQSRQPASD   142
NTDB id 1131 NGFG RS05740 WP 003695064.1       EGRIQSRKYQGKDGIERTAYDIV....ANEMKMLGGRNENSGGAPYDEG........YGQSQE..AYQRPAQQSRQPAPD   142
NTDB id 1390 A4U84 RS00055 WP 021115958.1      EGKLKTRKWQDQNGQDRYTTEIQ....GDVLQMLDSRSSGGDF...GG....NQGSGWNQAPAQTNYNQGGYSDNYAQNN   147
NTDB id 172619 DSM2777 RS05440 WP 043488863.1 EGALQTRKWTDQAGVEKYTTEIVVN.VGGTMQMLGGRQG..GGAPMGGGQAQGQQGGWGQPQ.............QPQGN   144
NTDB id 1166 A1552VC RS00795 WP 000168289.1   EGQLQTRKWQDQSGQDRYSTEVVVQGYNGIMQMLGGRAQQGGMPAQGGMNVPAQQGSWGQPQ.............QPAKQ   147
consensus                                     !!*****!!**** !*********    *  **!!**!* * **** ***    *    **! *    **  *    *** *
```

```
logo
NTDB id 1103 NMB RS07590 WP 002212976.1        A...PSHPQEAPAAPRRQPVPAAAPVEDIDDDIPF   174
NTDB id 1131 NGFG RS05740 WP 003695064.1       A...PSHPQEAPAAPRRQPVPAAAPVEDIDDDIPF   174
NTDB id 1390 A4U84 RS00055 WP 021115958.1      NFNGGNATR..PQPAQKPAAQAEPPMDNFDDDIPF   180
NTDB id 172619 DSM2777 RS05440 WP 043488863.1 QFSGGSQPAARPQNAPAAQPQSNEPPMDFDDDIPF   179
NTDB id 1166 A1552VC RS00795 WP 000168289.1   H.....QPMQQSAPQQYSQPQYNEPPMDFDDDIPF   177
consensus                                         * *   **   *   **  !****!!!!!!
```

X non conserved

X similar

X $\geq$ 50% conserved