```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1119 NGFG RS11465 WP 017147169.1        ....MNTLQKGFTLIELMIVIAIVGILAAVALPAYQDYTARAQVSEAILLAEGQKSAVTEYYLNHGKWPENNTSAGVASP    76
NTDB id 1002 ACIAD RS15100 WP 004923779.1        .....MNAQKGFTLIELMIVIAIIGILAAIAIPAYTDYTVRARVSEGLTAASSMKTTVSENILNAGALVAGTPSTAG...    72
NTDB id 1197 PSJM300 03940 AFN76866.1            ...MKAQMQKGFTLIELMIVVAIIGILAAIALPAYQDYTVRSNAAAALAEITPGKIGFEQAINEGK.TPSLTST.DEGYI    75
NTDB id 1184 GTF74 RS02335 WP 000649326.1        MKAYKNKQQKGFTLIELMIVVAVIGVLAAIAIPQYQNYVKKSAIGVGLANITALKTNIEDYIATEGSFPATTAGTAAGFT    80
NTDB id 1167 A1552VC RS11065 WP 000649326.1      MKAYKNKQQKGFTLIELMIVVAVIGVLAAIAIPQYQNYVKKSAIGVGLANITALKTNIEDYIATEGSFPATTAGTAAGFT    80
NTDB id 1160 ABDM36 RS02330 WP 000649326.1       MKAYKNKQQKGFTLIELMIVVAVIGVLAAIAIPQYQNYVKKSAIGVGLANITALKTNIEDYIATEGSFPATTAGTAAGFT    80
NTDB id 1192 PAKAF RS23870 WP 024947914.1        .....MKAQKGFTLIELMIVVAIIGILAAIAIPQYQNYVARSEGASALASVNPLKTTVEEALSRGWSVKSGTGTED....    71
NTDB id 1051087 ACEYZN RS01500 WP 000993726.1    .....MNAQKGFTLIELMIVVAIIGILAAIAIPQYQNYVGRSNVAAAVQTLTSNKSGLESYVMEFGEFPDGTTAPAAGDP    75
NTDB id 1038 HON27 RS01510 WP 000993725.1        .....MNAQKGFTLIELMIVVAIIGILAAIAIPQYQNYIAKSQVNSGFSEISSIKTGYENAVNE.GAVPTKLS..DVGFT    72
consensus                                                !!!!!!!!!!!!*!**!*!!!*!*!*!**!* ** ** *** ** *!* *****   * **  *   ****
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1119 NGFG RS11465 WP 017147169.1        P....TDIK...............GKYV...KEVEVKNGVVTATMLSSGVNNEIKGKKLSLWGRRENGSVKWFCGQPVTR   134
NTDB id 1002 ACIAD RS15100 WP 004923779.1        ....SSCVGVQEISASNAT.....TNVAT.ATCGASSAGQIIVTMDTT....KAKGANITLTPTYASGAVTWKCTTTS..   136
NTDB id 1197 PSJM300 03940 AFN76866.1            GITDSTSY................CD....VDLDTAADGHIECTAKGGN.AGKFDGKTITLNR.T..ADGEWSCASTL..   129
NTDB id 1184 GTF74 RS02335 WP 000649326.1        RLGTVEDMGD..............GKIVIAPTASGALGGTIKYTFDAGV....VSSSKIQLAR.D..ANGLWTCSTTV..   137
NTDB id 1167 A1552VC RS11065 WP 000649326.1      RLGTVEDMGD..............GKIVIAPTASGALGGTIKYTFDAGV....VSSSKIQLAR.D..ANGLWTCSTTV..   137
NTDB id 1160 ABDM36 RS02330 WP 000649326.1       RLGTVEDMGD..............GKIVIAPTASGALGGTIKYTFDAGV....VSSSKIQLAR.D..ANGLWTCSTTV..   137
NTDB id 1192 PAKAF RS23870 WP 024947914.1        .......ATKKEVPLGVAADANKLGTIALKPDP.ADGTADITLTFTMGGAGPKNKGKIITLTRTA..ADGLWKCTSDQ..   139
NTDB id 1051087 ACEYZN RS01500 WP 000993726.1    TANPPVAATRGERPQDLGIVNTTLGSIAL.GDK.NNGAGIITLTFATGN..PGIKGKKVQLAR.D..ANGTWTCVTDV..   146
NTDB id 1038 HON27 RS01510 WP 000993725.1        AATSSVCA................TYSIDA.FTE.TDGAGKITCT.LKGN..PKIATKIVELTR.S..TDGAWTCVSDV..   127
consensus                                                *                 * *  *  *  ** *  !*  *     * **** ! *    * * !*!****
```

```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 1119 NGFG RS11465 WP 017147169.1        ADDDTVADAKDGKEIDTKHLPSTCRDKASDAK.....   166
NTDB id 1002 ACIAD RS15100 WP 004923779.1        ................DKKYVPSECRG...........   147
NTDB id 1197 PSJM300 03940 AFN76866.1            ................DAKYKPGKCS............   139
NTDB id 1184 GTF74 RS02335 WP 000649326.1        ................TSEIAPKGCTAGATIN......   153
NTDB id 1167 A1552VC RS11065 WP 000649326.1      ................TSEIAPKGCTAGATIN......   153
NTDB id 1160 ABDM36 RS02330 WP 000649326.1       ................TSEIAPKGCTAGATIN......   153
NTDB id 1192 PAKAF RS23870 WP 024947914.1        ................DEQFIPKGCSK...........   150
NTDB id 1051087 ACEYZN RS01500 WP 000993726.1    ................DEKFAAKACPVGTPQ.......   161
NTDB id 1038 HON27 RS01510 WP 000993725.1        ................PTEFLPKGCTAGTPTEGAITSL   149
consensus                                                        ** * ***!***
```

X non conserved

X similar

X ≥ 50% conserved