```
NTDB id 409441 GPZ88 RS06350 WP 166043738.1  MLKIENVTGGYINIPVLKNISFEVGDGELVGLIGLNGAGKSTTINEVIGLLTPYQGKITLDGLTLADNQAEYRKKIGFIP  80
NTDB id 473 HSISS4 RS07770 WP 021143710.1    MLKLEKVTGGYANIPVLKDVTFEVADGELVGLIGLNGAGKSTTINEIIGLLTPYGGQIAIDGLTIQQDPASYRQKIGYIP  80
NTDB id 481 STER RS07730 WP 002951673.1      MLKLEKVTGGYANIPVLKDVTFEVADGELVGLIGLNGAGKSTTINEIIGLLTPYGGQIAIDGLTIQQDPASYRQKIGYIP  80
consensus                                    !!!*!*!!!!!*!!!!!!***!!!*!!!!!!!!!!!!!!!!!!!!!!*!!!!!!!*!*!**!!!!*****!*!!*!!!*!!
```

```
NTDB id 409441 GPZ88 RS06350 WP 166043738.1  ETPSLYEELTLREHLETVAMAYDLDFDEAMARAKELLKLFRLSDKLEWFPINFSKGMKQKVMIVCAFMIDPHLFIVDEPF  160
NTDB id 473 HSISS4 RS07770 WP 021143710.1    ETPSLYEELTLREHLETVLMAYGLDVTEGMVRADKYLKLFRLDEKLDWFPTQFSKGMKQKVMIICAFIVNPSLFIVDEPF  160
NTDB id 481 STER RS07730 WP 002951673.1      ETPSLYEELTLREHLETVLMAYGLDVTEGMARADKYLKLFRLDEKLDWFPTQFSKGMKQKVMIICAFIVNPSLFIVDEPF  160
consensus                                    !!!!!!!!!!!!!!!!!!*!!!*!!**!*!*!!***!!!!!!**!!*!!!**!!!!!!!!!!!*!!!***!*!!!!!!!!
```

```
NTDB id 409441 GPZ88 RS06350 WP 166043738.1  LGLDPLAISDLTDLLAQEKSKGKAILMSTHVLDAAEKMCDRFVILHHGQVRAMGNLAELRQAFGKEDASLNDIYMALTKE  240
NTDB id 473 HSISS4 RS07770 WP 021143710.1    LGLDPLAISDLIELLAEEKAKGKAILMSTHVLDSAEKMCDRFVILHHGQVLAQGTLEELRQTFGDDSASLNDIYMQLTKG  240
NTDB id 481 STER RS07730 WP 002951673.1      LGLDPLAISDLIELLAEEKANGKSILMSTHVLDSAEKMCDRFVILHHGQILAQGTIDELRQTFGDSSASLNDIYMQLTKG  240
consensus                                    !!!!!!!!!!!!**!!!*!!**!!*!!!!!!!!!!*!!!!!!!!!!!!!!!!!!!!**!*!***!!!!*!!**!!!!!!!!!*!!!*
```

```
NTDB id 409441 GPZ88 RS06350 WP 166043738.1  G..   241
NTDB id 473 HSISS4 RS07770 WP 021143710.1    ELS   243
NTDB id 481 STER RS07730 WP 002951673.1      ELS   243
consensus                                    ***
```

X non conserved
X similar
X ≥ 50% conserved