```
logo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                
NTDB id 98 BSU 24710 NP 390351.1                ...................MNEKGFTLVEMLIVLFIISILLLITIPNVTKHNQTIQKKGCEGLQNMVKAQMTAFELDHEGQT    63
NTDB id 1096276 ACLKMS RS05945 WP 032603491.1   ..........MKTLKLLKKTRAFTLIEMLLVLLIISLLLILIIPNIAKQTSHIQSTGCDAQVKMVNSQIEAYALKHNRTP    70
NTDB id 32 MW RS07995 WP 000472256.1            ............MFKFLKKTQAFTLIEMLLVLLIISLLLILIIPNIAKQTAHIQSTGCNAQVKMVNSQIEAYALKHNRNP    68
NTDB id 16 SA RS07765 WP 000472256.1            ............MFKFLKKTQAFTLIEMLLVLLIISLLLILIIPNIAKQTAHIQSTGCNAQVKMVNSQIEAYALKHNRNP    68
NTDB id 588 KW2 RS10845 WP 051303741.1          MSKALSLVKIHGRKLCQKKQKAFTLIEMLIVLAIISILIILLFVPNLIKEKAQVQKTGEAAVVKVVESQAQLYELDHDNDK    80
NTDB id 460 GPW51 RS00790 WP 011921720.1        ...........MKKLVEMKVKGFTLVEMLVVLGIISLLLLLFVPNLSQQKDAIQKKGDAAVVKVVESQMELYELEHD.EE    68
NTDB id 502 SM12261 RS00955 WP 000738641.1      .......MKKMMTFLKKAKVKAFTLVEMLVVLLIISVLLLLFVPNLTKQKEAVNDKGKAAVVKVVESQAELYSLDKN.ED    72
NTDB id 162 SP RS10370 WP 000738627.1           .......MKKMMTFLKKAKVKAFTLVEMLVVLLIISVLFLLFVPNLTKQKEAVNDKGKAAVVKVVESQAELYSLEKN.ED    72
NTDB id 272 KZH43 RS09255 WP 000738626.1        .......MKKMMTFLKKAKVKAFTLVEMLVVLLIISVLFLLFVPNLTKQKEAVNDKGKAAVVKVVESQAELYSLEKN.ED    72
NTDB id 231 SPD RS09885 WP 000738626.1          .......MKKMMTFLKKAKVKAFTLVEMLVVLLIISVLFLLFVPNLTKQKEAVNDKGKAAVVKVVESQAELYSLEKN.ED    72
NTDB id 197 SPR RS09420 WP 000738626.1          .......MKKMMTFLKKAKVKAFTLVEMLVVLLIISVLFLLFVPNLTKQKEAVNDKGKAAVVKVVESQAELYSLEKN.ED    72
NTDB id 530 SMSK321 RS09230 WP 000738643.1      .......MKKMMTFLKKAKVKAFTLVEMLVVLLIISVLLLLFVPNLTKQKEAVNDKGKAAVVKVVESQAELYSLDKN.ED    72
NTDB id 431 SGO RS09410 WP 012130940.1          ...........MNKLKKLRVKAFTLVEMLVVLLIISVLMLLFVPNLTKQKEAVSDTGNAAVVKVVESQAELYELKNTGDQ    69
NTDB id 396 FSA28 RS09395 WP 002263437.1        ...........MKKIKRVSVRAFTLIEMLVVLLIISILLLLFVPNLTKQKDKVKDTGGSAVVKVVESQAELYELNKT.DS    68
NTDB id 387 SMU RS09025 WP 002263437.1          ...........MKKIKRVSVRAFTLIEMLVVLLIISILLLLFVPNLTKQKDKVKDTGGSAVVKVVESQAELYELNKT.DS    68
consensus                                                   *  *** ****!!!*!!!*!!*!!!*!*****!!******* *** ! ******!**!**** !* * *
```

```
logo

NTDB id 98 BSU 24710 NP 390351.1                PSLADLQSEGYVKKDAV.CPNGKRIIITGGEVKVEH    98
NTDB id 1096276 ACLKMS RS05945 WP 032603491.1   SNIDDLVSDGFIKEGQKTCKSGQTISIAN.GEAVAN   105
NTDB id 32 MW RS07995 WP 000472256.1            SSIEDLIADGFIKEAQKTCKSGETITISN.GEAVAN   103
NTDB id 16 SA RS07765 WP 000472256.1            SSIEDLIADGFIKEAQKTCKSGETITISN.GEAVAN   103
NTDB id 588 KW2 RS10845 WP 051303741.1          PNLSELLSAGMITQKQVTAYDDYYDQNKNEQRNFDD   116
NTDB id 460 GPW51 RS00790 WP 011921720.1        ATVADLQAKGYITEKQAKQYATAKK...........    93
NTDB id 502 SM12261 RS00955 WP 000738641.1      ASLSKLQADGRITEEQAKAYKEYHAKQNTSQTVAD.   107
NTDB id 162 SP RS10370 WP 000738627.1           ASLRKLQADGRITEEQAKAYKEYNDKNGGANRKVND   108
NTDB id 272 KZH43 RS09255 WP 000738626.1        ASLRKLQADGRITEEQAKAYKEYHDKNGGANRKVND   108
NTDB id 231 SPD RS09885 WP 000738626.1          ASLRKLQADGRITEEQAKAYKEYHDKNGGANRKVND   108
NTDB id 197 SPR RS09420 WP 000738626.1          ASLRKLQADGRITEEQAKAYKEYHDKNGGANRKVND   108
NTDB id 530 SMSK321 RS09230 WP 000738643.1      ASLSKLQADGRITEEQAKAYNEYYAKNGGANRKVND   108
NTDB id 431 SGO RS09410 WP 012130940.1          ATLSKLVAAGNISQKQADSYKAYYGKNNSETQAVAN   105
NTDB id 396 FSA28 RS09395 WP 002263437.1        ATLSKLVASGDITQEQANSYKDYYAKHPSKTRHVAN   104
NTDB id 387 SMU RS09025 WP 002263437.1          ATLSKLVASGDITQEQANSYKDYYAKHPSKTRHVAN   104
consensus                                       *** *! **! ******  * **  *       *
```

X non conserved

X similar

X ≥ 50% conserved