```
logo
NTDB id 602 KW2 RS03060 WP 011834647.1              .....MGYLVPTVIEQSSRGERAYDIYSRLLKDRIIMLTGPVEDGMANSIIAQLLFLDAQDNTKDIYLYVNTPGGSVSAG   75
NTDB id 611 V4T04 RS07970 WP 003129593.1            .....MGYLVPTVIEQSSRGERAYDIYSRLLKDRIIMLTGPVEDGMANSIIAQLLFLDAQDNTKDIYLYVNTPGGSVSAG   75
NTDB id 330 STU RS11365 WP 002949732.1              ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPIEDNMANSIIAQLLFLDAQDNTKDIYLYVNTPGGSVSAG   72
NTDB id 298 STER RS01925 WP 002949732.1             ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPIEDNMANSIIAQLLFLDAQDNTKDIYLYVNTPGGSVSAG   72
NTDB id 282 KZH43 RS03215 WP 000613477.1            ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSVIAQLLFLDAQDSTKDIYLYVNTPGGSVSAG   72
NTDB id 246 SPD RS03495 WP 000613477.1              ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSVIAQLLFLDAQDSTKDIYLYVNTPGGSVSAG   72
NTDB id 244 SPR RS03300 WP 000613477.1              ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSVIAQLLFLDAQDSTKDIYLYVNTPGGSVSAG   72
NTDB id 242 SP RS03655 WP 000613477.1               ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSVIAQLLFLDAQDSTKDIYLYVNTPGGSVSAG   72
NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1        ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSVIAQLLFLDAQDNTKDIYLYVNTPGGSVSAG   72
NTDB id 445 SPYM3 RS01720 WP 002985850.1            ........MIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSVIAQLLFLDAQDNTKDIYLYVNTPGGSVSAG   72
NTDB id 376 SMU RS07595 WP 255262720.1              MELKEKYSMIPVVIEQTSRGERSYDIYSRLLKDRIIMLTGPVEDNMANSIIAQLLFLDAQDNTKDIYLYINSPGGSVSAG   80
NTDB id 1223 Cj0192c YP 002343650.1                .......MFIPYVIEKSSRGERSYDIYSRLLKDRIIMLSGEIHDELAASIVAQLLFLEAEDPTKDIYLYINSPGGVITSG   73
NTDB id 81910 BG06 RS26785 WP 000991625.1          ......MNAIPYVVEQTKLGERSYDIYSRLLKDRIVIIGSEINDQVASSVVAQLLFLEAEDAEKDIFLYINSPGGSTTAG   74
NTDB id 86 BSU 34540 NP 391334.1                   ......MNLIPTVIEQTNRGERAYDIYSRLLKDRIIMLGSAIDDNVANSIVSQLLFLAAEDPEKEISLYINSPGGSITAG   74
consensus                                                   **!*!*!****!!!*!!!!!!!!!!!!********!**!*!***!!!!!*!*! *!*!*!!*!*!!!****!
```

```
logo
NTDB id 602 KW2 RS03060 WP 011834647.1              LAIVDTMNFIKSDVQTIVMGMAASMGTIIASSGTKGKRFMLPNAEYLIHQPMGGAGQGTQQTDMAIVAEQLLKTRKRLEQ   155
NTDB id 611 V4T04 RS07970 WP 003129593.1            LAIVDTMNFIKSDVQTIVMGMAASMGTIIASSGTKGKRFMLPNAEYLIHQPMGGTGQGTQQTDMAIVAEQLLKTRKRLEQ   155
NTDB id 330 STU RS11365 WP 002949732.1              LAIVDTMNFIKSDVQTIVMGMAASMGTIIASSGTKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRNNLEQ   152
NTDB id 298 STER RS01925 WP 002949732.1             LAIVDTMNFIKSDVQTIVMGMAASMGTIIASSGTKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRNNLEQ   152
NTDB id 282 KZH43 RS03215 WP 000613477.1            LAIVDTMNFIKADVQTIVMGMAASMGTVIASSGAKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRNTLEK   152
NTDB id 246 SPD RS03495 WP 000613477.1              LAIVDTMNFIKADVQTIVMGMAASMGTVIASSGAKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRNTLEK   152
NTDB id 244 SPR RS03300 WP 000613477.1              LAIVDTMNFIKADVQTIVMGMAASMGTVIASSGAKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRNTLEK   152
NTDB id 242 SP RS03655 WP 000613477.1               LAIVDTMNFIKADVQTIVMGMAASMGTVIASSGAKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRNTLEK   152
NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1        LAIVDTMNFIKADVQTIVMGMAASMGTVIASSGTKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRHRLEK   152
NTDB id 445 SPYM3 RS01720 WP 002985850.1            LAIVDTMNFIKADVQTIVMGMAASMGTVIASSGTKGKRFMLPNAEYMIHQPMGGTGGGTQQTDMAIAAEHLLKTRHRLEK   152
NTDB id 376 SMU RS07595 WP 255262720.1              LAIVDTMNFIKSDVQTIVMGIAASMGTIIASSGAKGKRFMLPNAEYLIHQPMGGTGGGTQQSDMAIAAEQLLKTRKKLEK   160
NTDB id 1223 Cj0192c YP 002343650.1                FSIYDTMNYIKPDVCTICIGQAASMGAFLLSCGAEGKRFALPNSRIMIHQPLGGARG..QATDIEIQAKEILRLKTILND   151
NTDB id 81910 BG06 RS26785 WP 000991625.1          FAILDTMNLIKPDVQTLCMGFAASFGALLLLSGAKGKRFALPNSEIMIHQPLGGAQG..QATEIEITAKRILKLKHDINK   152
NTDB id 86 BSU 34540 NP 391334.1                   MAIYDTMQFIKPKVSTICIGMAASMGAFLLAAGEKGKRYALPNSEVMIHQPLGGAQG..QATEIEIAAKRILLLRDKLNK   152
consensus                                           **!*!!!**!! *!*!***!*!!!*!******! *!!!**!!!****!!!!*!!*****!*****!*!***!***  ***
```

```
logo
NTDB id 602 KW2 RS03060 WP 011834647.1              ILADNSNRSLEQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK.   199
NTDB id 611 V4T04 RS07970 WP 003129593.1            ILADNSNRSLEQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK.   199
NTDB id 330 STU RS11365 WP 002949732.1              ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNNQLK.   196
NTDB id 298 STER RS01925 WP 002949732.1             ILADNSGQPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNNQLK.   196
NTDB id 282 KZH43 RS03215 WP 000613477.1            ILAENSGQSMEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.   196
NTDB id 246 SPD RS03495 WP 000613477.1              ILAENSGQSMEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.   196
NTDB id 244 SPR RS03300 WP 000613477.1              ILAENSGQSMEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.   196
NTDB id 242 SP RS03655 WP 000613477.1               ILAENSGQSMEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.   196
NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1        ILAQNAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.   196
NTDB id 445 SPYM3 RS01720 WP 002985850.1            ILAQNAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.   196
NTDB id 376 SMU RS07595 WP 255262720.1              ILSDNSGKTIKQIHKDAERDYWMDAKETLKYGFIDEIMENNELK.   204
NTDB id 1223 Cj0192c YP 002343650.1                ILAKNTKQKVAKIAKDTERDFFMSAQEAKEYGLIDKVLEKSFK..   194
NTDB id 81910 BG06 RS26785 WP 000991625.1          MIAEKTGQPIERVAHDTERDYFMTAEEAKAYGIVDDVVTKK....   193
NTDB id 86 BSU 34540 NP 391334.1                   VLAERTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK   197
consensus                                           ************** !**!! ***! !***!!**!*** ** **
```

X non conserved
X similar
X $\geq$ 50% conserved