```
logo
NTDB id 381 SMU RS09890 WP 002262650.1        MNNTKSHPFLKWFIPFLVIFLTFILGVISTLTFNWITGNKSFSNN..GKTTVSNVIYDTKSNTTKAVKNVKNTVVSVINY   78
NTDB id 425 SGO RS10525 WP 012131081.1        .MKNSSNFFKKTLQVFIVLLVGFIGGVAGTWGFSYFSTPHSATNNNQKTATTVTTSYKNSNSTTEAVDKVKDAVVSVITY   79
NTDB id 405026 GOM47 RS09630 WP 235080670.1  .MKHLQTFYKKGVTFLIILIGFLSGALGSFVTLQLYQKQGSQATNNTTNTVTQTSYKNENATTQAVNKVKDAVVSVITY   79
NTDB id 539 SM12261 RS09395 WP 000681587.1   .MKHLKTFYKKGFQLLVVIVISFFSGALGSFSINQLTQKSTE.STSNNNSTITQTAYKNENSTTQAVNKVKDAVVSVITY   78
NTDB id 256 KZH43 RS10270 WP 000681597.1     .MKHLKTFYKKWFQLLVVIVISFFSGALGSFSITQLTQKSSV.NNSNNNSTITQTAYKNENSTTQAVNKVKDAVVSVITY   78
NTDB id 215 SPD RS10945 WP 000681597.1       .MKHLKTFYKKWFQLLVVIVISFFSGALGSFSITQLTQKSSV.NNSNNNSTITQTAYKNENSTTQAVNKVKDAVVSVITY   78
NTDB id 181 SPR RS10425 WP 000681597.1       .MKHLKTFYKKWFQLLVVIVISFFSGALGSFSITQLTQKSSV.NNSNNNSTITQTAYKNENSTTQAVNKVKDAVVSVITY   78
NTDB id 145 SP RS11450 WP 000681597.1        .MKHLKTFYKKWFQLLVVIVISFFSGALGSFSITQLTQKSSV.NNSNNNSTITQTAYKNENSTTQAVNKVKDAVVSVITY   78
consensus                                     ********!***********!**!**************  *******!*****!*****!!*!!**!!**!!!!!*!

logo
NTDB id 381 SMU RS09890 WP 002262650.1        QKTDNSYYNYDSGSQEKNKSEDGLGVYGEGSGVIYKKDGDSAYLVTNNHVVKDAEKLEIMMANGKKVVGKLVGSDTYSDL   158
NTDB id 425 SGO RS10525 WP 012131081.1        SESNSDAI...FDNNNSG..NENDQVASEGSGVIYRKDKDYAYLVTNTHVINGAKKVDIRLADGNKVPGEIVGTDTYSDI   154
NTDB id 405026 GOM47 RS09630 WP 235080670.1  SANRQNSV...FGNDETDTDTDSQQVASEGSGVIYKKNGKDAYLVTNTHVIKGASKVDIRLADGTKVPGEIVGSDTFSDI   156
NTDB id 539 SM12261 RS09395 WP 000681587.1   SANRQNSV...FGNDDTD..TDSQQISSEGSGVIYKKNDKEAYIVTNNHVINGASKVDIRLSDGTKVPGEIVGADTFSDI   153
NTDB id 256 KZH43 RS10270 WP 000681597.1     SANRQNSV...FGNDDTD..TDSQRISSEGSGVIYKKNDKEAYIVTNNHVINGASKVDIRLSDGTKVPGEIVGADTFSDI   153
NTDB id 215 SPD RS10945 WP 000681597.1       SANRQNSV...FGNDDTD..TDSQRISSEGSGVIYKKNDKEAYIVTNNHVINGASKVDIRLSDGTKVPGEIVGADTFSDI   153
NTDB id 181 SPR RS10425 WP 000681597.1       SANRQNSV...FGNDDTD..TDSQRISSEGSGVIYKKNDKEAYIVTNNHVINGASKVDIRLSDGTKVPGEIVGADTFSDI   153
NTDB id 145 SP RS11450 WP 000681597.1        SANRQNSV...FGNDDTD..TDSQRISSEGSGVIYKKNDKEAYIVTNNHVINGASKVDIRLSDGTKVPGEIVGADTFSDI   153
consensus                                     ********   *******  **** ***!!!!!!!!*****!!*!!!*!!***!*!**!****!*!!*!**!!*!!*!!*

logo
NTDB id 381 SMU RS09890 WP 002262650.1        AVIKISSKYVTTVAEFANSDKIKVGEPAIAIGSPLGSDYANSVTEGIVSSLSRTVTSQNENGETISTNAIQTDAAINPGN   238
NTDB id 425 SGO RS10525 WP 012131081.1        SVVRIPADKVKNVAEFGDSSKLTVGETAIAIGSPLGSDYANTVTQGIVSSLSRNVSSRSEDGQTIATQAIQTDAAINPGN   234
NTDB id 405026 GOM47 RS09630 WP 235080670.1  AVVKISSEKVTTVAEFGDSSKLNVGETAIAIGSPLGSEYANTVTQGIISSLNRNVSLKSQDGQAISTKAIQTDTAINPGN   236
NTDB id 539 SM12261 RS09395 WP 000681587.1   AVVKISSEKVTTVAEFGDSSKLTVGETAIAIGSPLGSEYANTVTQGIVSSLNRNVSLKSEDGQAISTKAIQTDTAINPGN   233
NTDB id 256 KZH43 RS10270 WP 000681597.1     AVVKISSEKVTTVAEFGDSSKLTVGETAIAIGSPLGSEYANTVTQGIVSSLNRNVSLKSEDGQAISTKAIQTDTAINPGN   233
NTDB id 215 SPD RS10945 WP 000681597.1       AVVKISSEKVTTVAEFGDSSKLTVGETAIAIGSPLGSEYANTVTQGIVSSLNRNVSLKSEDGQAISTKAIQTDTAINPGN   233
NTDB id 181 SPR RS10425 WP 000681597.1       AVVKISSEKVTTVAEFGDSSKLTVGETAIAIGSPLGSEYANTVTQGIVSSLNRNVSLKSEDGQAISTKAIQTDTAINPGN   233
NTDB id 145 SP RS11450 WP 000681597.1        AVVKISSEKVTTVAEFGDSSKLTVGETAIAIGSPLGSEYANTVTQGIVSSLNRNVSLKSEDGQAISTKAIQTDTAINPGN   233
consensus                                    *!**!****!**!!!!**!*!**!!!*!!!!!!!!!!!*!!!*!!*!!*!!!*!*!******!**!*!*!!!!!*!!!!!!

logo
NTDB id 381 SMU RS09890 WP 002262650.1        SGGALINIKGQVIGINSSKIASSNNSNSGVAVEGMGFAIPSNDVVSIINQLEENGEVVRPALGISMANLSEASTSGRDTL   318
NTDB id 425 SGO RS10525 WP 012131081.1        SGGPLVNIQGQVIGITSSKIANTNN..GSTSVEGMGFAIPSNDVVNIIEQLEKNGKVIRPALGIQMVNLSSLSSSSSDRL   312
NTDB id 405026 GOM47 RS09630 WP 235080670.1  SGGPLVNIQGQVIGITSSKIAS..N..GGTSVEGLGFAIPSNDAQNIIKQLESDGKVTRPALGIQMVNLTNIGASDLRKL   312
NTDB id 539 SM12261 RS09395 WP 000681587.1   SGGPLINIQGQVIGITSSKIAT..N..GGTSVEGLGFAIPANDAINIIEQLEKNGKVTRPALGIQMVNLSNINTSDIRRL   309
NTDB id 256 KZH43 RS10270 WP 000681597.1     SGGPLINIQGQVIGITSSKIAT..N..GGTSVEGLGFAIPANDAINIIEQLEKNGKVTRPALGIQMVNLSNVSTSDIRRL   309
NTDB id 215 SPD RS10945 WP 000681597.1       SGGPLINIQGQVIGITSSKIAT..N..GGTSVEGLGFAIPANDAINIIEQLEKNGKVTRPALGIQMVNLSNVSTSDIRRL   309
NTDB id 181 SPR RS10425 WP 000681597.1       SGGPLINIQGQVIGITSSKIAT..N..GGTSVEGLGFAIPANDAINIIEQLEKNGKVTRPALGIQMVNLSNVSTSDIRRL   309
NTDB id 145 SP RS11450 WP 000681597.1        SGGPLINIQGQVIGITSSKIAT..N..GGTSVEGLGFAIPANDAINIIEQLEKNGKVTRPALGIQMVNLSNVSTSDIRRL   309
consensus                                    !!!*!*!!*!!!!!!*!!!!!*  !  ****!!!*!!!!!*!!***!!*!!!**!*!*!!!!!!*!*!!*****!****!
```

```
logo

NTDB id 381 SMU RS09890 WP 002262650.1        KIPSDVTSGIVVLSTQSGMPADGKLKKYDVITEIDGKKVASISDLQSILYKHKKGDKIKLTFYREKDKQTVEIQLTKTSQ   398
NTDB id 425 SGO RS10525 WP 012131081.1        KLPDNVKNGVVVRSTQTGMPADGKLEKYDVITKIDDTEISSASDIQSALYKHSINEEIKVTYYRDGKEQTTTIKLTKSTD   392
NTDB id 405026 GOM47 RS09630 WP 235080670.1   NIPSSVTSGVVVKSVQSNMPASGHLEKYDVITKVDDKEISSSTDLQSALYNHSIGDTIKITYYRNGKEDTTTVKLDKSTS   392
NTDB id 539 SM12261 RS09395 WP 000681587.1    NIPSNVTSGVVVRSVQSNMPANGHLEKYDVITKVDDKEIASSTDLQSALYNHSIGDTIKITYYRNGKEETTSIKLDKSSG   389
NTDB id 256 KZH43 RS10270 WP 000681597.1      NIPSNVTSGVIVRSVQSNMPANGHLEKYDVITKVDDKEIASSTDLQSALYNHSIGDTIKITYYRNGKEETTSIKLNKSSG   389
NTDB id 215 SPD RS10945 WP 000681597.1        NIPSNVTSGVIVRSVQSNMPANGHLEKYDVITKVDDKEIASSTDLQSALYNHSIGDTIKITYYRNGKEETTSIKLNKSSG   389
NTDB id 181 SPR RS10425 WP 000681597.1        NIPSNVTSGVIVRSVQSNMPANGHLEKYDVITKVDDKEIASSTDLQSALYNHSIGDTIKITYYRNGKEETTSIKLNKSSG   389
NTDB id 145 SP RS11450 WP 000681597.1         NIPSNVTSGVIVRSVQSNMPANGHLEKYDVITKVDDKEIASSTDLQSALYNHSIGDTIKITYYRNGKEETTSIKLNKSSG   389
consensus                                     **!**!**!**!*!*!**!!!*!*!*!!!!!!**!*****!**!*!!*!!*!*****!!*!*!!*****!****! !***

logo

NTDB id 381 SMU RS09890 WP 002262650.1        DLNH.   402
NTDB id 425 SGO RS10525 WP 012131081.1        DLSSE   397
NTDB id 405026 GOM47 RS09630 WP 235080670.1   DLES.   396
NTDB id 539 SM12261 RS09395 WP 000681587.1    DLES.   393
NTDB id 256 KZH43 RS10270 WP 000681597.1      DLES.   393
NTDB id 215 SPD RS10945 WP 000681597.1        DLES.   393
NTDB id 181 SPR RS10425 WP 000681597.1        DLES.   393
NTDB id 145 SP RS11450 WP 000681597.1         DLES.   393
consensus                                     !!**
```

X non conserved

X similar

X $\geq$ 50% conserved