

NTDB	id	316709 D6869 RS03320 WP 011834647.1	MGYL	VPTVIEQSSRGERAYDIYSRLRKDRIIMLTGPVEDG	MANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	75
NTDB	id	602 KW2 RS03060 WP 011834647.1	MGYL	VPTVIEQSSRGERAYDIYSRLRKDRIIMLTGPVEDG	MANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	75
NTDB	id	611 V4T04 RS07970 WP 003129593.1	MGYL	VPTVIEQSSRGERAYDIYSRLRKDRIIMLTGPVEDG	MANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	75
NTDB	id	330 STU RS11365 WP 002949732.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPIEDNMANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	72	
NTDB	id	298 STER RS01925 WP 002949732.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPIEDNMANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	72	
NTDB	id	282 KZH43 RS03215 WP 000613477.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDS TKDIYLYVNTPGGSVSAG	72	
NTDB	id	246 SPD RS03495 WP 000613477.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDS TKDIYLYVNTPGGSVSAG	72	
NTDB	id	244 SPR RS03300 WP 000613477.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDS TKDIYLYVNTPGGSVSAG	72	
NTDB	id	242 SP RS03655 WP 000613477.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDS TKDIYLYVNTPGGSVSAG	72	
NTDB	id	376 SMU RS07595 WP 255262720.1	MELKEKYS	MIPVVIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDN TKDIYLYINS PGGSVSAG	80	
NTDB	id	446 SpyM6JRS4 RS01695 WP 002985850.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	72	
NTDB	id	445 SPYM3 RS01720 WP 002985850.1	MIPV	VIEQTSRGERSYDIYSRLRKDRIIMLTGPVEDNMANSIIAQLLFDAQDN TKDIYLYVNTPGGSVSAG	72	
NTDB	id	1223 Cj0192c YP 002343650.1	MFIP	YVIEKSSRGRSYDIYSRLRKDRIIMLSGEIHDELAASIVAQLLFLEAE DP TKDIYLYINS PGGVITS G	73	
NTDB	id	86 BSU 34540 NP 391334.1	MNL	IPTVIEQTNRGERAYDIYSRLRKDRIIMLSGAIDNVANSIVSQLLFLAAE DEPEKEISL YINS PGGSITAG	74	
consensus				** * *	* ** * * * *	

NTDB id	316709 D6869 RS03320 WP 011834647.1	LAIVDTMNFIKSDVQTI VMGMAASMGTTIASSGTKGKRFMLPNAEYL I HQPMGGAGQG GTQTDMAI VAEQL LKTRKRLEQ	155
NTDB id	602 KW2 RS03060 WP 011834647.1	LAIVDTMNFIKSDVQTI VMGMAASMGTTIASSGTKGKRFMLPNAEYL I HQPMGGAGQG GTQTDMAI VAEQL LKTRKRLEQ	155
NTDB id	611 V4T04 RS07970 WP 003129593.1	LAIVDTMNFIKSDVQTI VMGMAASMGTTIASSGTKGKRFMLPNAEYL I HQPMGGTG GTQTDMAI VAEQL LKTRKRLEQ	155
NTDB id	330 STU RS11365 WP 002949732.1	LAIVDTMNFIKSDVQTI VMGMAASMGTTIASSGTKGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTRNNLEQ	152
NTDB id	298 STER RS01925 WP 002949732.1	LAIVDTMNFIKSDVQTI VMGMAASMGTTIASSGTKGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTRNNLEQ	152
NTDB id	282 KZH43 RS03215 WP 000613477.1	LAIVDTMNFIKADVQTI VMGMAASMGTVIASSGA KGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTRN TLEK	152
NTDB id	246 SPD RS03495 WP 000613477.1	LAIVDTMNFIKADVQTI VMGMAASMGTVIASSGA KGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTRN TLEK	152
NTDB id	244 SPR RS03300 WP 000613477.1	LAIVDTMNFIKADVQTI VMGMAASMGTVIASSGA KGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTRN TLEK	152
NTDB id	242 SP RS03655 WP 000613477.1	LAIVDTMNFIKADVQTI VMGMAASMGTVIASSGA KGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTRN TLEK	152
NTDB id	376 SMU RS07595 WP 255262720.1	LAIVDTMNFIKSDVQTI VMGTIIAASMGTIIASSGA KGKRFMLPNAEYL I HQPMGGTG GGTQS DMAIAAEQL LKTRKKLEK	160
NTDB id	446 SpyM6JRS4 RS01695 WP 002985850.1	LAIVDTMNFIKADVQTI VMGMAASMGTVIASSGTKGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTR H RLEK	152
NTDB id	445 SPYM3 RS01720 WP 002985850.1	LAIVDTMNFIKADVQTI VMGMAASMGTVIASSGTKGKRFMLPNAEYMIHQPMGGTG GGTQTDMIAAAEHLLKTR H RLEK	152
NTDB id	1223 Cj0192c YP 002343650.1	F S IVDTMNYIKPDVC TICIGQAASMGAF L SC GAEGKRFA LPNSRI MIHQPLGCARG . . QATDIEIQAKETLR LK TI LND	151
NTDB id	86 BSU 34540 NP 391334.1	M A I VDTMQFIKPKVSTIC IGMAASMGAF L LA EG KKGRYA LPNSEVM IHQPLGGAQG . . QATE IE IA AKRILLRLDKL NK	152
consensus		** * * * *	* * * * *

NTDB id 316709 D6869 RS03320 WP 011834647.1	ILADNSNRSL	EQIHKDAERD	HWM	DAKETLEYGFIDEIMENNS	SLK.	199	
NTDB id 602 KW2 RS03060 WP 011834647.1	ILADNSNRSL	EQIHKDAERD	HWM	DAKETLEYGFIDEIMENNS	SLK.	199	
NTDB id 611 V4T04 RS07970 WP 003129593.1	ILADNSNRSL	EQIHKDAERD	HWM	DAKETLEYGFIDEIMENNS	SLK.	199	
NTDB id 330 STU RS11365 WP 002949732.1	ILADNSGGQPI	EKVHVDAERD	NWMSA	QETLEYGFIDEIMTNN	QLK.	196	
NTDB id 298 STER RS01925 WP 002949732.1	ILADNSGGQPI	EKVHVDAERD	NWMSA	QETLEYGFIDEIMTNN	QLK.	196	
NTDB id 282 KZH43 RS03215 WP 000613477.1	ILAENSGGQSM	EKVHADAERD	NWMSA	QETLEYGFIDEIMANNS	SLN.	196	
NTDB id 246 SPD RS03495 WP 000613477.1	ILAENSGGQSM	EKVHADAERD	NWMSA	QETLEYGFIDEIMANNS	SLN.	196	
NTDB id 244 SPR RS03300 WP 000613477.1	ILAENSGGQSM	EKVHADAERD	NWMSA	QETLEYGFIDEIMANNS	SLN.	196	
NTDB id 242 SP RS03655 WP 000613477.1	ILAENSGGQSM	EKVHADAERD	NWMSA	QETLEYGFIDEIMANNS	SLN.	196	
NTDB id 376 SMU RS07595 WP 255262720.1	ILSDNSGKTI	IKIHKDAERD	YWM	DAKETLKYGFIDEIMENNEL	K.	204	
NTDB id 446 SpyM6JRS4 RS01695 WP 002985850.1	ILAQNAGKTI	IKIHKDAERD	YWMSA	EETLAYGFIDEIMENNEL	K.	196	
NTDB id 445 SPYM3 RS01720 WP 002985850.1	ILAQNAGKTI	IKIHKDAERD	YWMSA	EETLAYGFIDEIMENNEL	K.	196	
NTDB id 1223 Cj0192c YP 002343650.1	ILAKNITKQK	VAIAKDT	TERDF	FMSAQEAK	EYGLIDKVL	EKSFK.. 194	
NTDB id 86 BSU 34540 NP 391334.1	VLAERTGGP	LEVI	ERTD	DRDNFKSA	EAL	EYGLIDKIL	THTEDKK 197
consensus	*!*	*****	*****	*****	*****	*****	

 non conserved
 similar
 $\geq 50\%$ conserved