

NTDB id	602 KW2 RS03060 WP 011834647.1	MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANS	I	IAQLFLDAQDN	TCKDIYLYVNTPGGSVSAG	75
NTDB id	611 V4T04 RS07970 WP 003129593.1	MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANS	I	IAQLFLDAQDN	TCKDIYLYVNTPGGSVSAG	75
NTDB id	97861 R8613 RS03715 WP 000613477.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	282 KZH43 RS03215 WP 000613477.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	246 SPD RS03495 WP 000613477.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	244 SPR RS03300 WP 000613477.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	242 SP RS03655 WP 000613477.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	330 STU RS11365 WP 002949732.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPIEDNMANS	I	IAQLFLDAQDN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	298 STER RS01925 WP 002949732.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPIEDNMANS	I	IAQLFLDAQDN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	446 SpyM6JRS4 RS01695 WP 002985850.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	445 SPYM3 RS01720 WP 002985850.1	MIPVV	EIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANS	V	IAQLFLDAQDN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	376 SMU RS07595 WP 255262720.1	MELKEKYSLP	VIVIEKSRRGERSYDIYSRLKDRIIMLTGPVEDNMANS	I	IAQLFLDAQDN	TCKDIYLYINSPPGGSVSAG	80
NTDB id	86 BSU 34540 NP 391334.1	MNLI	PVTVEQTNRGERAYDIYSRLKDRIIMLGSAIDNVMANS	I	VSQLLFLAAE	DPEKEISLINSPPGSIITAG	74
NTDB id	1223 Cj0192c YP 002343650.1	MFIPY	VIEKSRGERSYDIYSRLKDRIIMLSGEIHDELGAAS	I	VAQLLFLEA	EDPTCKDIYLYINSPGGVIITSG	73
consensus		**!*	*!!!!**!!*!!*****!	*	*!*!!*	*!!!****!!*!!!!***!!	

NTDB	id	602	KW2	RS03060	WP	011834647.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSGT	TGKGRFMLPNAEYL	LHQP MGGAAG	QGTTQQTDMAIVA EQLLKTRKRLEQ	155
NTDB	id	611	V4T04	RS07970	WP	003129593.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSGT	TGKGRFMLPNAEYL	LHQP MGGTGG	QGTTQQTDMAIVA EQLLKTRKRLEQ	155
NTDB	id	97861	R8613	RS03715	WP	000613477.1	LAIVDTMNFIKA	DVQTI VMGMAASMGTVIASSG	A KGKRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNTLEK	152	
NTDB	id	282	KZH43	RS03215	WP	000613477.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	A KGKRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNTLEK	152	
NTDB	id	246	SPD	RS03495	WP	000613477.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	A KGKRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNTLEK	152	
NTDB	id	244	SPR	RS03300	WP	000613477.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	A KGKRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNTLEK	152	
NTDB	id	242	SP	RS03655	WP	000613477.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	A KGKRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNTLEK	152	
NTDB	id	330	STU	RS11365	WP	002949732.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	TGKGRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNNLEQ	152	
NTDB	id	298	STER	RS01925	WP	002949732.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	TGKGRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRNNLEQ	152	
NTDB	id	446	SpyM6JRS4	RS01695	WP	002985850.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	TGKGRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRHRLEK	152	
NTDB	id	445	SPYM3	RS01720	WP	002985850.1	LAIVDTMNFIKS	DVQTI VMGMAASMGTVIASSG	TGKGRFMLPNAEYMIHQPMGGTGGGT	QGTTQQTDMAIAA EHLKTRHRLEK	152	
NTDB	id	376	SMU	RS07595	WP	255262720.1	LAIVDTMNFIKS	DVQTI VMGTAASMGTVIASSG	A KGKRFMLPNAEYL	LHQP MGGTGGGTQQSDMAIAA EQLLKTRKKLEK	160	
NTDB	id	86	BSU	34540	NP	391334.1	MAIYDTMQFIKPKVST	ICIGMAASMGAFLLAAGE	EKGKRYALPNSEVMIHQPLGGAQG..	QATEIEIAAKRI LLRLDKLNK	152	
NTDB	id	1223	Cj0192c	YP	002343650.1	FSIIYDTMNYIKP	DVCTICIGQAASMGAFLLSCGAE	EKGKRFALPNSRIMIHQPLGGARG..	QATDIEIQAKE IRL KITI LND	151		
consensus							**!!*****!	*!*****!	*!*****!	*!*****!	*!*****!	*!*****!

NTDB id	602 KW2 RS03060 WP 011834647.1	ILADNSNRSLLEQTHKDAERDHWMDAKETLEYGFIDEIMENNSLK.	199
NTDB id	611 V4T04 RS07970 WP 003129593.1	ILADNSNRSLLEQTHKDAERDHWMDAKETLEYGFIDEIMENNSLK.	199
NTDB id	97861 R8613 RS03715 WP 000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	282 KZH43 RS03215 WP 000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	246 SPD RS03495 WP 000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	244 SPR RS03300 WP 000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	242 SP RS03655 WP 000613477.1	ILAENSQGSMSEKVHADAERDNWMSAQETLEYGFIDEIMANNSLN.	196
NTDB id	330 STU RS11365 WP 002949732.1	ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.	196
NTDB id	298 STER RS01925 WP 002949732.1	ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK.	196
NTDB id	446 SpyM6JRS4 RS01695 WP 002985850.1	ILAAQNAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.	196
NTDB id	445 SPYM3 RS01720 WP 002985850.1	ILAAQNAGKTIKQIHKDAERDYWMSAEETLAYGFIDEIMENNELK.	196
NTDB id	376 SMU RS07595 WP 255262720.1	ILSDNSGKTIKQIHKDAERDYWMDAKETLKYGFIDEIMENNELK.	204
NTDB id	86 BSU 34540 NP 391334.1	VLAERTTGQPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK	197
NTDB id	1223 Cj0192c YP 002343650.1	ILAKNITIKQKVAKIAKDTERDFFMSAQEAKKEYGLIDKVLKSFK..	194
consensus		*!*****!!***!!****!*!*****!?!*!*****	

 non conserved
 similar
 $\geq 50\%$ conserved