

NTDB id	602 KW2 RS03060 WP 011834647.1	MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANSIIAQLFLDQAQN	TCKDIYLYVNTPGGSVSAG	75
NTDB id	611 V4T04 RS07970 WP 003129593.1	MGYL	VPTVIEQSSRGERAYDIYSRLKDRIIMLTGPVEDGMANSIIAQLFLDQAQN	TCKDIYLYVNTPGGSVSAG	75
NTDB id	330 STU RS11365 WP 002949732.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPIEDNMANSIIAQLFLDQAQN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	298 STER RS01925 WP 002949732.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPIEDNMANSIIAQLFLDQAQN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	282 KZH43 RS03215 WP 000613477.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSVIAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	246 SPD RS03495 WP 000613477.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSVIAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	244 SPR RS03300 WP 000613477.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSVIAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	242 SP RS03655 WP 000613477.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSVIAQLFLDAQDS	TCKDIYLYVNTPGGSVSAG	72
NTDB id	446 SpyM6JRS4 RS01695 WP 002985850.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSVIAQLFLDQAQN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	445 SPYM3 RS01720 WP 002985850.1	MIP	VVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSVIAQLFLDQAQN	TCKDIYLYVNTPGGSVSAG	72
NTDB id	376 SMU RS07595 WP 255262720.1	MELKEKYS	MIPVVVEIQTSRGERSYDIYSRLKDRIIMLTGPVEDNMANSIIAQLFLDQAQN	TCKDIYLYINSPGGSVSAG	80
NTDB id	1223 Cj0192c YP 002343650.1	MFIP	PVVIETKSRRGERSYDIYSRLKDRIIMLSGETIHDELAASIVAQLLFLAEADP	TCKDIYLYINSPPGVITSG	73
NTDB id	249061 CP943 RS19115 WP 003185550.1	MNLIPT	VIEQTNRGERAYDIYSRLKDRIIMLGSAIDNVA NSIVSQLLFLEADEDPEKDISTIYN	SPGG SITAG	74
NTDB id	86 BSU 34540 NP 391334.1	MNLIPT	VIEQTNRGERAYDIYSRLKDRIIMLGSAIDNVA NSIVSQLLFLAAEADPEKEISLIYN	SPGG SITAG	74
consensus		**!!**!	*!!!!*****!****!*!!!!*****!***!*		

NTDB id	602	KW2	RS03060	WP	011834647.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYL	LHQP	MGGAGQG	TGQTQD	MAIVA	EAEQLL	KTRKR	LEQ	155
NTDB id	611	V4T04	RS07970	WP	003129593.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYL	LHQP	MGGTGQG	TGQTQD	MAIVA	EAEQLL	KTRKR	LEQ	155
NTDB id	330	STU	RS11365	WP	002949732.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRNN	LEQ		152	
NTDB id	298	STER	RS01925	WP	002949732.1	LAIVDTMNFIKS	DVQTI	VMGMAASMG	TIASSGT	TGKGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRNN	LEQ		152	
NTDB id	282	KZH43	RS03215	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRNT	LEK		152	
NTDB id	246	SPD	RS03495	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRNT	LEK		152	
NTDB id	244	SPR	RS03300	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRNT	LEK		152	
NTDB id	242	SP	RS03655	WP	000613477.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	AKGGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRNT	LEK		152	
NTDB id	446	SpyM6JRS4	RS01695	WP	002985850.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	TGKGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRHR	LEK		152	
NTDB id	445	SPYM3	RS01720	WP	002985850.1	LAIVDTMNFIKA	DVQTI	VMGMAASMG	TVIASSG	TGKGRFMLPNAEYMIHQPMGGTGGGT	TGQTQD	MAIAA	EAHL	LLKTRHR	LEK		152	
NTDB id	376	SMU	RS07595	WP	255262720.1	LAIVDTMNFIKS	DVQTI	VMGTAASMG	TIASSG	AKGGRFMLPNAEYL	LHQP	MGGTGGGTQQ	SDMAIAA	EAEQLL	KTRKK	LEK	160	
NTDB id	1223	Cj0192c	YP	002343650.1	F	SIYDTMN	YIKP	DVCTICIGQAASMG	AFLILSCGAEGKRFALPN	S	RIMIHQPLGGARG..	QATDIEIQAKE	IIRLK	ITILND			151	
NTDB id	249061	CP943	RS19115	WP	003185550.1	M	AIYDTMQFIKPQVS	TICTGMAASMG	AFLILAAEGKGKRYALPN	S	EVMIHQPLGGAQG..	QATEIEIAAKR	RILSLRD	KLNK			152	
NTDB id	86	BSU	34540	NP	391334.1	M	AIYDTMQFIKPQVS	TICTGMAASMG	AFLILAAEGKGKRYALPN	S	EVMIHQPLGGAQG..	QATEIEIAAKR	RILSLRD	KLNK			152	
consensus						**	!	*	!	*!!	***	!!	*****	!!!!	*****	!!!!	***	!*

NTDB id	602	KW2	RS03060	WP	011834647.1	ILADNSNRSLQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..	199
NTDB id	611	V4T04	RS07970	WP	003129593.1	ILADNSNRSLQIHKDAERDHWMDAKETLEYGFIDEIMENNSLK..	199
NTDB id	330	STU	RS11365	WP	002949732.1	ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..	196
NTDB id	298	STER	RS01925	WP	002949732.1	ILADNSGQPPIEKVHVDAERDNWMSAQETLEYGFIDEIMTNQLK..	196
NTDB id	282	KZH43	RS03215	WP	000613477.1	ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	246	SPD	RS03495	WP	000613477.1	ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	244	SPR	RS03300	WP	000613477.1	ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	242	SP	RS03655	WP	000613477.1	ILAENSQGSMSEKVVHADAERDNWMSAQETLEYGFIDEIMANNSLN..	196
NTDB id	446	SpyM6JRS4	RS01695	WP	002985850.1	ILAAQNAGKTIKQIHKAERDYWMSAEETLAYGFIDEIMENNELK..	196
NTDB id	445	SPYM3	RS01720	WP	002985850.1	ILAAQNAGKTIKQIHKAERDYWMSAEETLAYGFIDEIMENNELK..	196
NTDB id	376	SMU	RS07595	WP	255262720.1	ILSDNSGKTIKQIHKAERDYWMDAKETLKYGFIDEIMENNELK..	204
NTDB id	1223	Cj0192c	YP	002343650.1	ILAKNITKKVKVAIAKDTERDFFMASQAQEAKEYGLIDKVLEKSFK..	194	
NTDB id	249061	CP943	RS19115	WP	003185550.1	ILAERTGGPLEVIERDTDRDNFKTAEEAKEYGLIDKVLTRNIDAQK	198
NTDB id	86	BSU	34540	NP	391334.1	VLAERTGGPLEVIERDTDRDNFKSAEEALEYGLIDKILTHTEDKK.	197
consensus						*!*****!*****!*!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*!!*	

 non conserved
 similar
 $\geq 50\%$ conserved