

logo

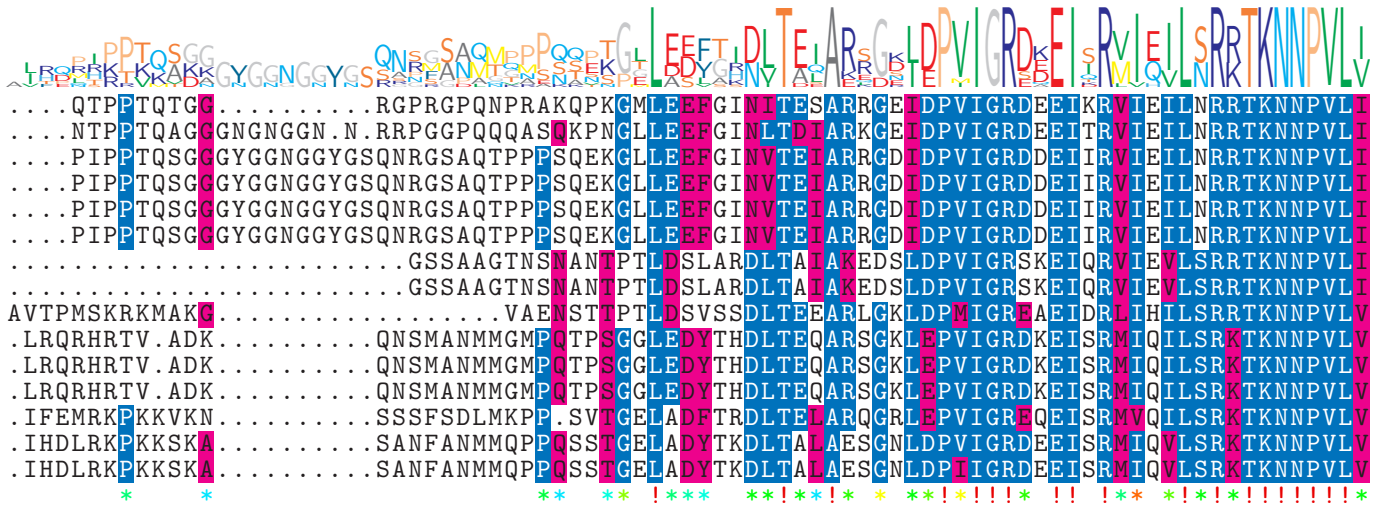
NTDB id 601 KW2 RS02615 WP 021036805.1	MLCQNCNINEA.....TI	13
NTDB id 378 SMU RS02690 WP 002263569.1	MLCQNCNINEA.....TI	13
NTDB id 241 SP RS04015 WP 000882523.1	MLCQNCNINDS.....TI	13
NTDB id 281 KZH43 RS03550 WP 000882517.1	MLCQNCNINDS.....TI	13
NTDB id 245 SPD RS03860 WP 000882517.1	MLCQNCNINDS.....TI	13
NTDB id 243 SPR RS03635 WP 000882517.1	MLCQNCNINDS.....TI	13
NTDB id 133603 QF06 RS19500 WP 003235011.1	..MMFGRFTERAQKVLALAQEEALRLGHNNGTEHILLGLVREGEGLAAKALQALGLGSEKIQKEVESLIG.....RGQEMS	75
NTDB id 85 BSU 00860 NP 387967.1	..MMFGRFTERAQKVLALAQEEALRLGHNNGTEHILLGLVREGEGLAAKALQALGLGSEKIQKEVESLIG.....RGQEMS	75
NTDB id 610 V4T04 RS10165 WP 012897346.1	MKFENIKYPTPLDRILEKAE EYAHQYQYGTIESAHLAAMATTSGSTAYSLLAGMNVDDSSDLLIDL.....EDLSSHVKVKR	77
NTDB id 290 KZH43 RS10025 WP 001109677.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE....EVALELTETDYSQDET	75
NTDB id 289 SPD RS10700 WP 001109677.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE....EVALELTETDYSQDET	75
NTDB id 287 SP RS11210 WP 001109712.1	MNYSKALNECIESAYMVAGHFGARYLESWHLLIAMSNHSYSVAGATLNDYPYEMDRLE....EVALELTETDYSQDET	75
NTDB id 377 SMU RS09275 WP 002262344.1	...MTDYS LKMQEVFRLAQFEAARFESSYLESWHVLLAMVEIDSSVAGLSFAEFEADVRFEDYQAAAILAIGKKPKSSSN...DI	79
NTDB id 329 STER RS00545 WP 011680614.1	...MTIYSRKMQAIFHRAQLEAERFESPFL ETWHVLLAMVEVTGSAVYLTFTDFEDRIHSEEIETA AAVLAMEKRPKDLSESDI	81
NTDB id 327 STU RS10020 WP 011225298.1	...MTIYSRKMQAIFHRAQLEAERFESPFL ETWHVLLAMVEVPGSAVYLTFTDFEDRIHSEEIETA AAVLAMEKRPKDLSESDI	81
consensus	*** * * * * *	

logo

NTDB	id	601	KW2	RS02615	WP	021036805.1	HL	Y	T	S	V	N	G	Q	K	K	Q	I	D	L	C	N	C	Y	Q	I	...	M	K	S	G	G	E	A	L	F	G	A	G	N	A	S	N	G	N	S	D	E	...	P	F	N	P	.	F	N	D	I	F	S	A	L	Q	G	Q	.	D	F	N	G	A	A	S	N	.	80									
NTDB	id	378	SMU	RS02690	WP	002263569.1	H	L	Y	A	N	V	N	G	Q	K	K	Q	I	D	L	C	N	C	Y	Q	I	...	M	K	T	D	P	E	N	G	P	L	N	H	I	S	Q	N	S	S	...	I	N	P	F	F	D	.	D	F	F	G	D	L	N	N	F	R	A	F	N	N	Q	D	L	P	.	79											
NTDB	id	241	SP	RS04015	WP	000882523.1	H	L	Y	T	N	L	N	G	K	Q	K	Q	I	D	L	C	N	C	Y	K	I	...	I	K	T	D	P	N	N	S	L	F	K	G	M	T	D	L	N	N	R	D	...	F	D	P	.	F	G	D	F	F	N	D	L	N	N	F	R	P	S	S	N	..	T	P	.	76											
NTDB	id	281	KZH43	RS03550	WP	000882517.1	H	L	Y	T	N	L	N	G	K	Q	K	Q	I	D	L	C	N	C	Y	K	I	...	I	K	T	D	P	N	N	S	L	F	K	G	M	T	D	L	N	N	R	D	...	F	D	P	.	F	G	D	F	F	N	D	L	N	N	F	R	P	S	S	N	..	T	P	.	76											
NTDB	id	245	SPD	RS03860	WP	000882517.1	H	L	Y	T	N	L	N	G	K	Q	K	Q	I	D	L	C	N	C	Y	K	I	...	I	K	T	D	P	N	N	S	L	F	K	G	M	T	D	L	N	N	R	D	...	F	D	P	.	F	G	D	F	F	N	D	L	N	N	F	R	P	S	S	N	..	T	P	.	76											
NTDB	id	243	SPR	RS03635	WP	000882517.1	H	L	Y	T	N	L	N	G	K	Q	K	Q	I	D	L	C	N	C	Y	K	I	...	I	K	T	D	P	N	N	S	L	F	K	G	M	T	D	L	N	N	R	D	...	F	D	P	.	F	G	D	F	F	N	D	L	N	N	F	R	P	S	S	N	..	T	P	.	76											
NTDB	id	133603	QF06	RS19500	WP	003235011.1	Q	T	I	H	Y	T	P	R	A	K	K	V	I	E	L	S	M	D	E	A	R	K	L	G	H	S	Y	V	G	T	E	H	I	L	L	G	L	I	R	E	G	E	G	V	A	A	R	V	L	N	N	L	G	V	S	L	N	K	A	R	Q	Q	V	L	Q	L	...	L	G	S	N	E	T	...	147				
NTDB	id	85	BSU	O0860	NP	387967.1	Q	T	I	H	Y	T	P	R	A	K	K	V	I	E	L	S	M	D	E	A	R	K	L	G	H	S	Y	V	G	T	E	H	I	L	L	G	L	I	R	E	G	E	G	V	A	A	R	V	L	N	N	L	G	V	S	L	N	K	A	R	Q	Q	V	L	Q	L	...	L	G	S	N	E	T	...	147				
NTDB	id	610	V4T04	RS10165	WP	012897346.1	S	T	L	R	F	S	P	R	A	E	E	V	M	T	A	A	S	F	L	A	I	H	N	N	S	E	A	V	G	T	E	H	L	Y	A	L	L	Q	V	E	D	.	G	F	G	L	Q	L	K	L	...	Q	K	I	N	I	V	S	L	R	K	E	.	L	E	K	R	T	.	G	L	K	V	P	E	S	K	.	153
NTDB	id	290	KZH43	RS10025	WP	001109677.1	T	E	L	P	F	S	R	R	L	Q	I	L	F	D	E	A	E	Y	V	A	S	.	V	V	H	A	K	V	L	G	T	E	H	V																																													

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 133603 QF06 RS19500 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



151
158
157
157
157
157
207
207
220
233
233
233
237
240
240

logo

NTDB id 601 KW2 RS02615 WP 021036805.1
NTDB id 378 SMU RS02690 WP 002263569.1
NTDB id 241 SP RS04015 WP 000882523.1
NTDB id 281 KZH43 RS03550 WP 000882517.1
NTDB id 245 SPD RS03860 WP 000882517.1
NTDB id 243 SPR RS03635 WP 000882517.1
NTDB id 133603 QF06 RS19500 WP 003235011.1
NTDB id 85 BSU 00860 NP 387967.1
NTDB id 610 V4T04 RS10165 WP 012897346.1
NTDB id 290 KZH43 RS10025 WP 001109677.1
NTDB id 289 SPD RS10700 WP 001109677.1
NTDB id 287 SP RS11210 WP 001109712.1
NTDB id 377 SMU RS09275 WP 002262344.1
NTDB id 297 STER RS00545 WP 011680614.1
NTDB id 329 STU RS10020 WP 011225298.1
consensus



236
243
242
242
242
242
291
291
305
318
318
318
322
325
325

NTDB	id	601	KW2	RS02615	WP	021036805.1	LSNRYI	QDRFL	LPDKAIDLLDE	SGSKN	NTL	TKF	..	VDPED	INRR	IA	AENK	KNEA	TKAE	D	EK	AA	HFRD	QIS	K	LR	EL	QK		Q	397																																		
NTDB	id	378	SMU	RS02690	WP	002263569.1	LSNRYI	QDRFL	LPDKAIDLLDE	AGSKN	N	TL	NF	..	VDPKE	IDHR	IE	AENL	KAQ	ATRE	D	EK	AA	YFRD	QIA	K	YK	EM	QS		A	404																																	
NTDB	id	241	SP	RS04015	WP	000882523.1	LSNRYI	QDRFL	LPDKAIDLLDE	AGSKN	N	TL	NF	..	VDPKV	IDQR	IE	AENL	KSQ	ATRE	D	EK	AA	YFRD	QIA	K	YK	EM	QK		K	403																																	
NTDB	id	281	KZH43	RS03550	WP	000882517.1	LSNRYI	QDRFL	LPDKAIDLLDE	AGSKN	N	TL	NF	..	VDPKV	IDQR	IE	AENL	KSQ	ATRE	D	EK	AA	YFRD	QIA	K	YK	EM	QK		K	403																																	
NTDB	id	245	SPD	RS03860	WP	000882517.1	LSNRYI	QDRFL	LPDKAIDLLDE	AGSKN	N	TL	NF	..	VDPKV	IDQR	IE	AENL	KSQ	ATRE	D	EK	AA	YFRD	QIA	K	YK	EM	QK		K	403																																	
NTDB	id	243	SPR	RS03635	WP	000882517.1	LSNRYI	QDRFL	LPDKAIDLLDE	AGSKN	N	TL	NF	..	VDPKV	IDQR	IE	AENL	KSQ	ATRE	D	EK	AA	YFRD	QIA	K	YK	EM	QK		K	403																																	
NTDB	id	133603	QF06	RS19500	WP	003235011.1	LSDRYI	SDRFL	LPDKAIDL	IDE	AGSKV	R	LS	FT	TP	PN	LKE	LE	QK	L	D	E	V	R	KE	KD	A	A	V	Q	S	E	E	K	A	A	S	L	R	D	T	E	Q	R	L	R	E	Q	V	E	D	T	K	K	S	W	K	461							
NTDB	id	85	BSU	00860	NP	387967.1	LSDRYI	SDRFL	LPDKAIDL	IDE	AGSKV	R	LS	FT	TP	PN	LKE	LE	QK	L	D	E	V	R	KE	KD	A	A	V	Q	S	E	E	K	A	A	S	L	R	D	T	E	Q	R	L	R	E	Q	V	E	D	T	K	K	S	W	K	461							
NTDB	id	610	V4T04	RS10165	WP	012897346.1	LSVRYMT	SRKLP	DKAIDLLDE	AAAVK	I	S	V	K	N	Q	Q	T	K	R	L	D	L	E	K	E	L	A	E	A	Q	E	L	S	E	A	V	I	K	L	D	I	K	A	S	R	T	K	E	K	A	V	E	K	I	A	D	K	I	Y	K	F	S		471
NTDB	id	290	KZH43	RS10025	WP	001109677.1	MAHRYLT	SRHLP	DSAIDLLDE	AAATV	Q	N	K	A	K	H	V	K	A	D	S	D	L		S		P	A	D	K	A	L	M	D	G	K	W	K	Q	A	A	Q	L	I	A	K	E	E		E		467													
NTDB	id	289	SPD	RS10700	WP	001109677.1	MAHRYLT	SRHLP	DSAIDLLDE	AAATV	Q	N	K	A	K	H	V	K	A	D	S	D	L		S		P	A	D	K	A	L	M	D	G	K	W	K	Q	A	A	Q	L	I	A	K	E	E		E		467													
NTDB	id	287	SP	RS11210	WP	001109712.1	MAHRYLT	SRHLP	DSAIDLLDE	AAATV	Q	N	K	A	K	H	V	K	A	D	S	D	L		S		P	A	D	K	A	L	M	D	G	K	W	K	Q	A	A	Q	L	I	A	K	E	E		E		467													
NTDB	id	377	SMU	RS09275	WP	002262344.1	GAHRYL	SGKNLP	DSAIDLLDE	A	S	A	T	V	Q	G	L	V	K	K	..	K	A	P	A	Y	L		T		D	L	D	H	A	L	I	T	N	D	Y	Q	L	A	K	R	L	L	K	K	E	K		K		469									
NTDB	id	329	STER	RS00545	WP	011680614.1	AAHRYLT	SKNLP	DSAIDLLDE	A	S	A	T	V	Q	V	R	I	K	K	..	E	D	K	R	E	I		T		P	L	D	E	A	L	I</																												

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	EVTDEDMPVITEKDI	IEQIVEQKTQIPVGD	LKEKEQQTQLINL	ADDLKAHVIGQDE	AVDKISK	KAIRRSRVGL	GKPNRP	IGSFL	LVGP	482						
NTDB id 378 SMU RS02690 WP 002263569.1	KLDKENTPVITEKN	IEVIVEQKTNI	PVGELKEKEEQS	QLIHLADDL	KTRVIGQDA	AVDKIA	KAIRNRV	VCLG	TPNRP	IGSFL	489					
NTDB id 241 SP RS04015 WP 000882523.1	KITDQDTPSISEKT	IEHIIIEQKTNI	PVGDLKEKEEQS	QLIHLAEDL	KSHVIGQDD	AVDKIA	KAIRNRV	VCLG	TPNRP	IGSFL	488					
NTDB id 281 KZH43 RS03550 WP 000882517.1	KITDQDTPITISEKT	IEHIIIEQKTNI	PVGDLKEKEEQS	QLIHLAEDL	KSHVIGQDD	AVDKIA	KAIRNRV	VCLG	TPNRP	IGSFL	488					
NTDB id 245 SPD RS03860 WP 000882517.1	KITDQDTPITISEKT	IEHIIIEQKTNI	PVGDLKEKEEQS	QLIHLAEDL	KSHVIGQDD	AVDKIA	KAIRNRV	VCLG	TPNRP	IGSFL	488					
NTDB id 243 SPR RS03635 WP 000882517.1	KITDQDTPITISEKT	IEHIIIEQKTNI	PVGDLKEKEEQS	QLIHLAEDL	KSHVIGQDD	AVDKIA	KAIRNRV	VCLG	TPNRP	IGSFL	488					
NTDB id 133603 QF06 RS19500 WP 003235011.1	EKQGGENSEVTVD	DIAMVVSSWTG	VPVSKIAQT	ETDKLLNMEN	ILHSRVIGQ	DEAVVA	AKAVRRAR	AGL	KDPKR	PIGSF	546					
NTDB id 85 BSU 00860 NP 387967.1	EKQGGENSEVTVD	DIAMVVSSWTG	VPVSKIAQT	ETDKLLNMEN	ILHSRVIGQ	DEAVVA	AKAVRRAR	AGL	KDPKR	PIGSF	546					
NTDB id 610 V4T04 RS10165 WP 012897346.1	VKEDKRQEVTDQA	VVAVASTLTG	VPITQMTKSE	SDRLINLEK	ELHKRVIGQ	EEAIS	AVSRA	IRRAR	SGVAD	SRPM	555					
NTDB id 290 KZH43 RS10025 WP 001109677.1	VPV.YKDLVTESD	ILTTLSRSL	SGIPVQKLT	TQTD	DAKKYLN	LEAE	LHKRVIGQ	QDAVSS	ISRA	IRRNQS	550					
NTDB id 289 SPD RS10700 WP 001109677.1	VPV.YKDLVTESD	ILTTLSRSL	SGIPVQKLT	TQTD	DAKKYLN	LEAE	LHKRVIGQ	QDAVSS	ISRA	IRRNQS	550					
NTDB id 287 SP RS11210 WP 001109712.1	VPV.YKDLVTESD	ILTTLSRSL	SGIPVQKLT	TQTD	DAKKYLN	LEAE	LHKRVIGQ	QDAVSS	ISRA	IRRNQS	550					
NTDB id 377 SMU RS09275 WP 002262344.1	PLLKKRAEVK	EEDILATLS	SKLSGIPV	KKLTQAD	SKKYLNL	EREL	LHKRVIGQ	DDAVSS	ISRA	IRRNQS	553					
NTDB id 297 STER RS00545 WP 011680614.1	AKFPPKALVDAD	QIMQTL	SRSLSGIP	VEKMTQT	DSKRYLN	LESE	LHKRVIGQ	DEAVSA	ISRA	IRRNQS	556					
NTDB id 329 STU RS10020 WP 011225298.1	AKFPPKALVDAD	QIMQTL	SRSLSGIP	VEKMTQT	DSKRYLN	LESE	LHKRVIGQ	DEAVSA	ISRA	IRRNQS	556					
consensus	*	*****	*	***	***!*	*	*	*****	*!*	*!*****!	*	*!*****!	!*	*	*!*****!	*****!

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	567
NTDB id 378 SMU RS02690 WP 002263569.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	574
NTDB id 241 SP RS04015 WP 000882523.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	573
NTDB id 281 KZH43 RS03550 WP 000882517.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	573
NTDB id 245 SPD RS03860 WP 000882517.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	573
NTDB id 243 SPR RS03635 WP 000882517.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	573
NTDB id 133603 QF06 RS19500 WP 003235011.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	631
NTDB id 85 BSU 00860 NP 387967.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	631
NTDB id 610 V4T04 RS10165 WP 012897346.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	640
NTDB id 290 KZH43 RS10025 WP 001109677.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	635
NTDB id 289 SPD RS10700 WP 001109677.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	635
NTDB id 287 SP RS11210 WP 001109712.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	635
NTDB id 377 SMU RS09275 WP 002262344.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	638
NTDB id 297 STER RS00545 WP 011680614.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	641
NTDB id 329 STU RS10020 WP 011225298.1	TGVGKTELAKALAE	VFDESSMIR	EDMSEYMEKHS	VSRLV	GAPPGYVGY	DEGGQ	TEKVRN	KPYSV	LLDE	IEKAHPD	VFN	ML	641
consensus	!!!!!!!!!!	*****!	*!*	**	***	*****!	*!*****!	*****!	*****!	*****!	*****!	*****!	*****!

645
652
651
651
651
651
716
716
725
720
720
720
723
726
726

729
736
735
735
735
735
801
801
810
805
805
805
808
811
811

logo

NTDB id 601 KW2 RS02615 WP 021036805.1	ISNQTQETAETTDDEEVPAE	748
NTDB id 378 SMU RS02690 WP 002263569.1	VIKASNK.VETVTKATSD.	753
NTDB id 241 SP RS04015 WP 000882523.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 281 KZH43 RS03550 WP 000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 245 SPD RS03860 WP 000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 243 SPR RS03635 WP 000882517.1	QIKSAKK.AEVKSSEKEK.	752
NTDB id 133603 QF06 RS19500 WP 003235011.1	VVKTTAKTN.....	810
NTDB id 85 BSU 00860 NP 387967.1	VVKTTAKTN.....	810
NTDB id 610 V4T04 RS10165 WP 012897346.1	KIAQIV.....	816
NTDB id 290 KZH43 RS10025 WP 001109677.1	KFDIA.....	810
NTDB id 289 SPD RS10700 WP 001109677.1	KFDIA.....	810
NTDB id 287 SP RS11210 WP 001109712.1	KFDIA.....	810
NTDB id 377 SMU RS09275 WP 002262344.1	KFDIV.....	813
NTDB id 297 STER RS00545 WP 011680614.1	TFTVV.....	816
NTDB id 329 STU RS10020 WP 011225298.1	TFTVV.....	816
consensus		



-  non conserved
-  similar
-  ≥ 50% conserved