

NTDB	id	1250	GC085	RS13065	WP	027219989.1	. . MNNLQLPLLA LNRMKRIGP RIVLKLRKRPDLNL MFQLSVV DLEEAGLP SWLAQT IKNFDPDF IKTDLN WLSSENHHI	78
NTDB	id	599	KW2	RS05940	WP	021037268.1	. MITNFD LFRWKKGAMTNLG VNKLLKF FRKYDRKIS LRQM . . GQAQVKSIPN FIEQQYKN QDVKKLRADY KKF S S	72
NTDB	id	525	SMSK321	RS06295	WP	000705298.1	MKITNYE IYKLKSSGLT NQQILKVLEYGENVDQE LLGDI . . ADISGRNP AVFMERYFQIDDAHLE KEFKKI IP S	73
NTDB	id	267	KZH43	RS05590	WP	000705306.1	MKITNYE IYKLKSSGLT NQQILKVLEYGENVDQE LLGDI . . ADISGRNP AVFMERYFQIDDAHLS KEFQKFP S	73
NTDB	id	226	SPD	RS05990	WP	000705306.1	MKITNYE IYKLKSSGLT NQQILKVLEYGENVDQE LLGDI . . ADISGRNP AVFMERYFQIDDAHL SKEFQKFP S	73
NTDB	id	192	SPR	RS05715	WP	000705306.1	MKITNYE IYKLKSSGLT NQQILKVLEYGENVDQE LLGDI . . ADISGRNP AVFMERYFQIDDAHLS KEFQKFP S	73
NTDB	id	157	SP	RS06205	WP	000705306.1	MKITNYE IYKLKSSGLT NQQILKVLEYGENVDQE LLGDI . . ADISGRNP AVFMERYFQIDDAHLS KEFQKFP S	73
NTDB	id	497	SM12261	RS05565	WP	000705318.1	MKITNYE IYKLKSSGLT NQQVLAVLEYGENVDQE LLGDI . . A E ISGRNP AVFMERYFQIDDAHLE KEFQKFP S	73
NTDB	id	137334	SD89	RS04415	WP	014407585.1	. . MNHFEE LYKLKKA GLTNKNI LN ILDY QE HQ EKSL SLRLDM . . AVVSGCKHP SHFI EA YK QL DI Q KLKM EF KKQP S	71
NTDB	id	407	SMU	RS04605	WP	002262865.1	. . MDNFFQ . . LFKLKKA GLTLN NI LN IIDYEERTQS LS RLDM . . AVVS KNKK PLIFMEHYKN LD SKAL RFKEFN FP S	71
consensus								
***** ! * ! ***** ! **** ! ** ! *** ! *								*

NTDB id 1250	GC085	RS13065	WP 027219989.1	L	T	W	D	S	P	Y	P	A	L	K	E	I	A	D	P	P	F	I	L	Y	A	K	G	E	L	S	A	L	T	Q	P	S	L	A	I	V	G	S	R	N	A	S	V	T	G	N	E	N	A	R	A	F	S	R	E	I	S	R	H	G	V	S	I	V	S	G	L	A	L	G	I	D	A	H	A	H	L	C	L	E	G	163			
NTDB id 599	KW2	RS05940	WP 021037268.1	F	S	I	L	D	D	L	Y	P	E	R	L	R	E	I	Y	N	P	P	V	L	I	F	Y	Q	G	N	I	D	L	L	K	N	P	K	L	A	F	V	G	S	R	L	A	G	Q	S	G	I	K	S	V	Q	K	I	V	T	E	L	N	Q	S	F	T	I	V	S	G	L	A	K	G	I	D	T	A	S	H	L	S	A	I	K	T	156	
NTDB id 525	SMSK321	RS06295	WP 000705298.1	F	S	I	L	D	D	C	Y	P	W	D	L	S	E	I	Y	D	A	P	V	L	L	F	Y	K	G	N	L	D	L	L	K	F	P	K	V	A	V	V	G	S	R	S	C	S	K	Q	G	A	K	S	V	E	K	I	I	Q	G	L	E	N	.	E	L	V	I	V	S	G	L	A	K	G	I	D	T	A	A	H	M	A	A	L	Q	N	157
NTDB id 267	KZH43	RS05590	WP 000705306.1	F	S	I	L	D	D	C	Y	P	W	D	L	S	E	I	Y	D	A	P	V	L	L	F	Y	K	G	N	L	D	L	L	K	F	P	K	V	A	V	V	G	S	R	A	C	S	K	Q	G	A	K	S	V	E	K	I	I	Q	G	L	E	N	.	E	L	V	I	V	S	G	L	A	K	G	I	D	T	A	A	H	M	A	A	L	Q	N	157
NTDB id 226	SPD	RS05990	WP 000705306.1	F	S	I	L	D	D	C	Y	P	W	D	L	S	E	I	Y	D	A	P	V	L	L	F	Y	K	G	N	L	D	L	L	K	F	P	K	V	A	V	V	G	S	R	A	C	S	K	Q	G	A	K	S	V	E	K	I	I	Q	G	L	E	N	.	E	L	V	I	V	S	G	L	A	K	G	I	D	T	A	A	H	M	A	A	L	Q	N	157
NTDB id 192	SPR	RS05715	WP 000705306.1	F	S	I	L	D	D	C	Y	P	W	D	L	S	E	I	Y	D	A	P	V	L	L	F	Y	K	G	N	L	D	L	L	K	F	P	K	V	A	V	V	G	S	R	A	C	S	K	Q	G	A	K	S	V	E	K	I	I	Q	G	L	E	N	.	E	L	V	I	V	S	G	L	A	K	G	I	D	T	A	A	H	M	A	A	L	Q	N	157
NTDB id 157	SP	RS06205	WP 000705306.1	F	S	I	L	D	D	C	Y	P	W	D	L	S	E	I	Y	D	A	P	V	L	L	F	Y	K	G	N	L	D	L	L	K	F	P	K	V	A	V	V	G	S	R	A	C	S	K	Q	G	A	K	S	V	E	K	I	I	Q	G	L	E	N	.	E	L	V	I	V	S	G	L	A	K	G	I	D	T	A	A	H	M	A	A	L	Q	N	157
NTDB id 497																																																																																									

NTDB id	1250	GC085	RS13065	WP	027219989.1	G	G	K	T	I	A	V	L	G	T	I	D	C	I	Y	P	R	R	H	L	K	L	A	E	Q	I	T	E	N	G	L	L	S	E	F	P	L	K	S	P	I	A	G	H	F	P	L	R	N	R	I	S	G	L	S	L	C	I	L	V	I	E	A	A	K	S	G	S	L	I	T	A	R	M	A	L	E	Q	N	R				
NTDB id	599	KW2	RS05940	WP	021037268.1	K	T	P	T	I	A	V	I	G	T	G	L	D	I	F	Y	P	L	E	N	R	K	I	Q	E	Y	L	A	K	Y	Q	L	V	L	S	E	Y	S	L	G	E	K	P	L	K	Y	H	F	P	E	R	N	R	I	I	A	G	L	S	R	G	V	V	V	E	A	K	L	R	S	G	S	L	I	T	C	E	R	A	L	E	E	G	R
NTDB id	525	SMSK321	RS06295	WP	000705298.1	G	G	K	T	I	A	V	I	G	T	G	L	D	V	F	Y	P	K	A	N	K	R	L	Q	D	Y	I	S	N	D	H	L	V	L	S	E	Y	G	P	G	E	Q	P	L	K	F	H	F	P	A	R	N	R	I	I	A	G	L	C	R	G	V	I	A	E	A	K	M	R	S	G	S	L	I	T	C	E	R	A	M	E	E	G	R
NTDB id	267	KZH43	RS05590	WP	000705306.1	G	G	K	T	I	A	V	I	G	T	G	L	D	V	F	Y	P	K	A	N	K	R	L	Q	D	Y	I	G	N	D	H	L	V	L	S	E	Y	G	P	G	E	Q	P	L	K	F	H	F	P	A	R	N	R	I	I	A	G	L	C	R	G	V	I	A	E	A	K	M	R	S	G	S	L	I	T	C	E	R	A	M	E	E	G	R
NTDB id	226	SPD	RS05990	WP	000705306.1	G	G	K	T	I	A	V	I	G	T	G	L	D	V	F	Y	P	K	A	N	K	R	L	Q	D	Y	I	G	N	D	H	L	V	L	S	E	Y	G	P	G	E	Q	P	L	K	F	H	F	P	A	R	N	R	I	I	A	G	L	C	R	G	V	I	A	E	A	K	M	R	S	G	S	L	I	T	C	E	R	A	M	E	E	G	R
NTDB id	192	SPR	RS05715	WP	000705306.1	G	G	K	T	I	A	V	I	G	T	G	L	D	V	F	Y	P	K	A	N	K	R	L	Q	D	Y	I	G	N	D	H	L	V	L	S	E	Y	G	P	G	E	Q	P	L	K	F	H	F	P	A	R	N	R	I	I	A	G	L	C	R	G	V	I	A	E	A	K	M	R	S	G	S	L	I	T	C	E	R	A	M	E	E	G	R
NTDB id	157	SP	RS06205	WP	000705306.1	G	G	K	T	I	A	V	I	G	T	G	L	D	V	F	Y	P	K	A	N	K	R	L	Q	D	Y	I	G	N	D	H	L	V	L	S	E	Y	G	P	G	E	Q	P	L	K	F	H	F	P	A	R	N	R	I	I	A	G	L	C	R	G	V	I	A	E	A	K	M	R	S	G	S	L	I	T	C	E	R	A	M	E	E	G	R
NTDB id	497	SM12261	RS05565	WP	000705318.1	G	G	K	T	I	A	V	I	G	T	G	L	D	V	F	Y	P	K	A	N	K	R	L	Q	D	Y	I	G	N	D	H	L	V	L	S	E	Y	G	P	G	E	Q	P	L	K	F	H	F	P	A	R	N	R	I	I	A	G	L	C	R	G	V	I	A	E	A	K	M	R	S	G	S	L	I	T	C	E	R	A	M	E	E	G	R
NTDB id	137334	SD89	RS04415	WP	014407585.1	G	G	Q	T	I	A	I	I	G	T	G	L	D	R	F	Y	P	K	E	N	R	E	L	Q	T	F	L	G</																																																								

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NTDB id 1250 GC085 RS13065 WP 027219989.1	DVLAIPGSIHNP	LARGCHYLL	QQGAKLVT	SVADVL	DELKIE	HHQFTSN	KPIFSLAS	GKENLV	KFIGFETTT	IDQIIDR	SGYGM	EQ	333
NTDB id 599 KW2 RS05940 WP 021037268.1	DIFAIPGN	IADGTS	DGCNHL	IQGAKLV	YQAQD	ILEEY	LYN						282
NTDB id 525 SMSK321 RS06295 WP 000705298.1	DVFAIPGS	ILDGLSDG	CHHLIQE	GAKLVT	SGQDV	LAEFEF							282
NTDB id 267 KZH43 RS05590 WP 000705306.1	DVFAIPGS	ILDGLSDG	CHHLIQE	GAKLVT	SGQDV	LAEFEF							282
NTDB id 226 SPD RS05990 WP 000705306.1	DVFAIPGS	ILDGLSDG	CHHLIQE	GAKLVT	SGQDV	LAEFEF							282
NTDB id 192 SPR RS05715 WP 000705306.1	DVFAIPGS	ILDGLSDG	CHHLIQE	GAKLVT	SGQDV	LAEFEF							282
NTDB id 157 SP RS06205 WP 000705306.1	DVFAIPGS	ILDGLSDG	CHHLIQE	GAKLVT	SGQDV	LAEFEF							282
NTDB id 497 SM12261 RS05565 WP 000705318.1	DVFAIPGS	ILDGLSDG	CHHLIQE	GAKLVT	SGQDV	LAEFEF							282
NTDB id 137334 SD89 RS04415 WP 014407585.1	DIFAVPGN	ILDGKSE	GCLQLI	KEGATC	VTSGMD	ILSEY							278
NTDB id 407 SMU RS04605 WP 002262865.1	DVFVVPGN	ILDGQSE	GCHHLIQE	GAKCIT	SGFDIL	NEFN							280
consensus	!*****!	!*****!	!*****!	!*****!	!*****!	!*****!	!*****!	!*****!	!*****!	!*****!	!*****!		

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NTDB id 1250 GC085 RS13065 WP 027219989.1	VT	S	G	L	A	E	L	E	L	K	G	A	V	I	A	V	P	G	G	Y	I	R	C	E	Y	E	R	361
NTDB id 599 KW2 RS05940 WP 021037268.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 525 SMSK321 RS06295 WP 000705298.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 267 KZH43 RS05590 WP 000705306.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 226 SPD RS05990 WP 000705306.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 192 SPR RS05715 WP 000705306.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 157 SP RS06205 WP 000705306.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 497 SM12261 RS05565 WP 000705318.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	282
NTDB id 137334 SD89 RS04415 WP 014407585.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	278
NTDB id 407 SMU RS04605 WP 002262865.1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	280
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-  non conserved
-  similar
-  ≥ 50% conserved