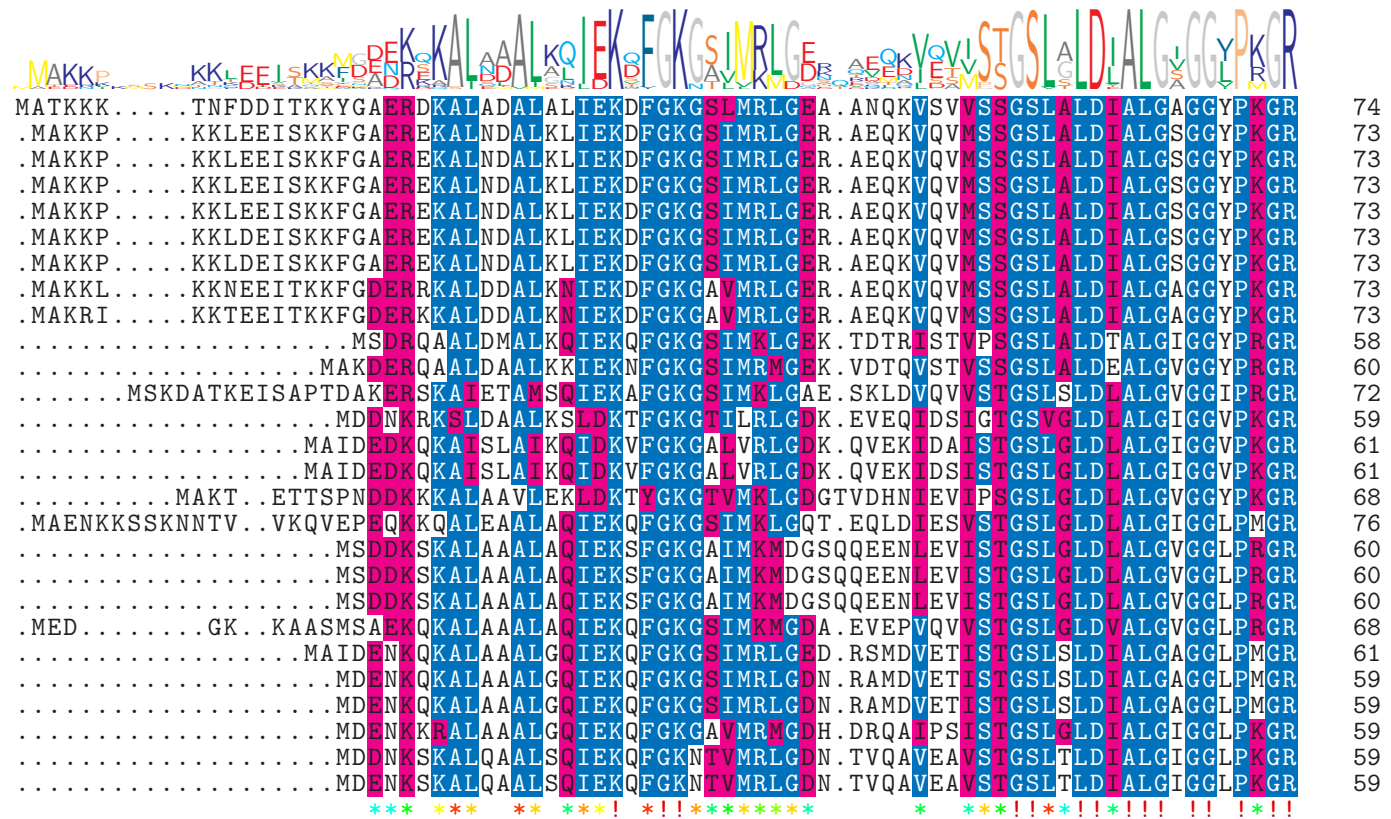
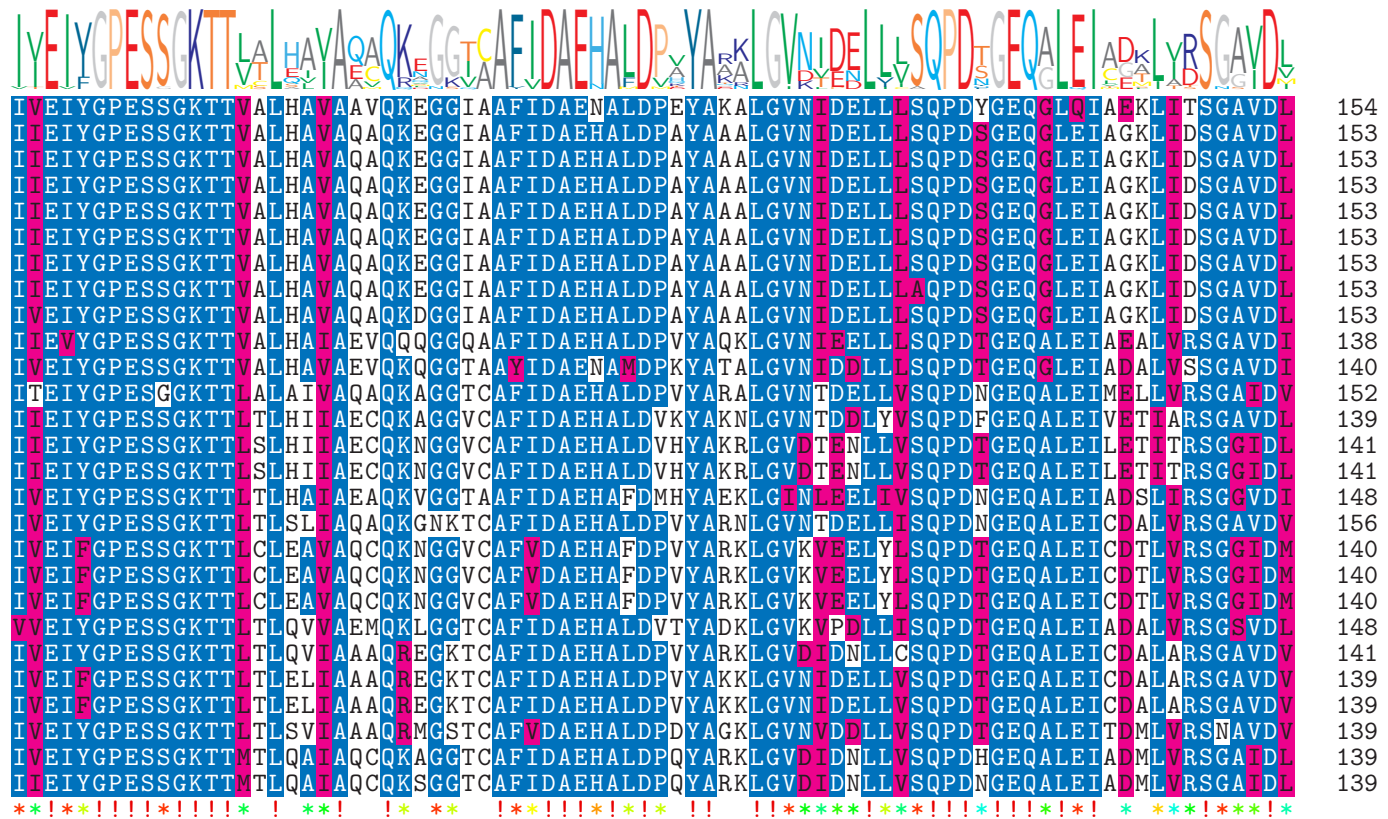


logo

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 296740 SM223186 RS15570 WP 000963150.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus



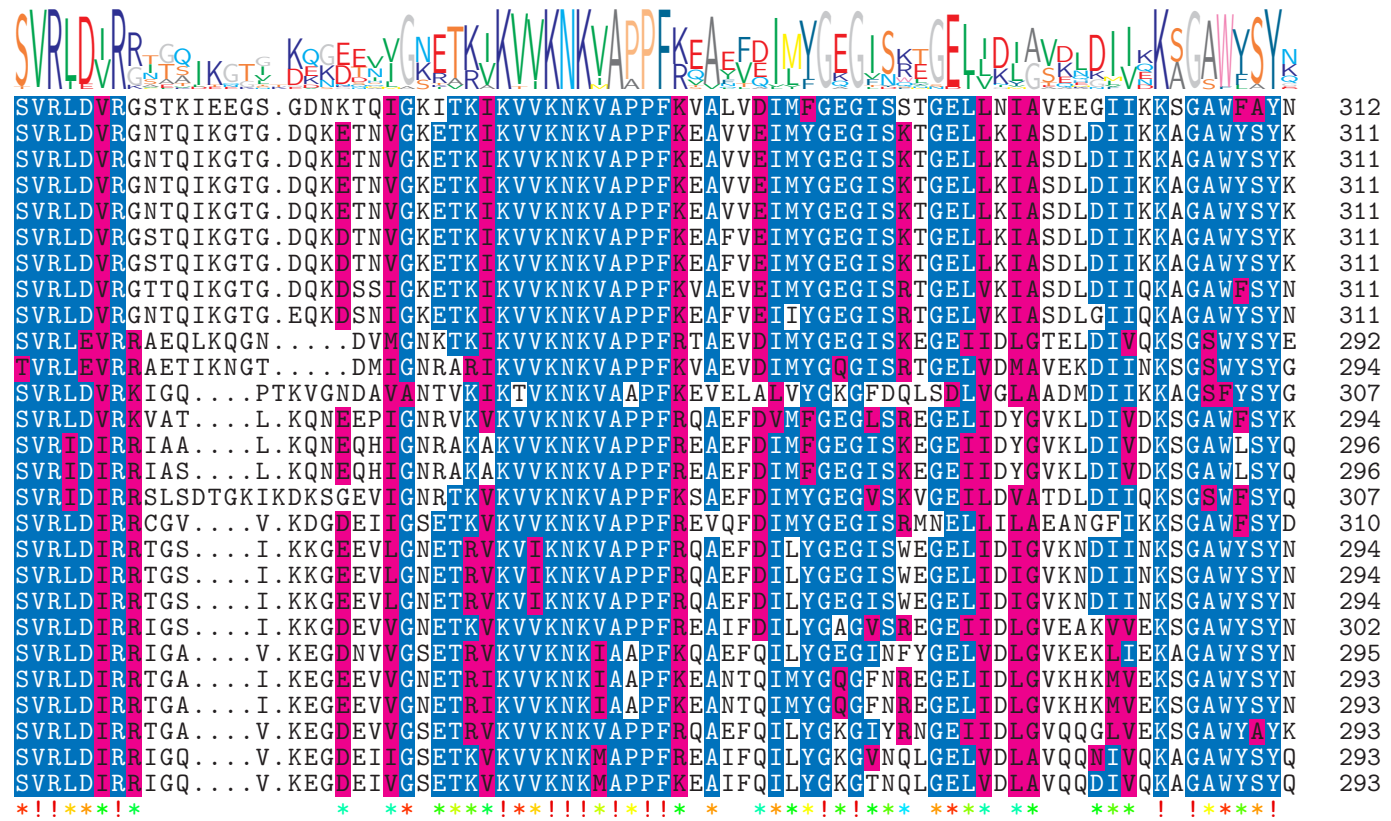
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 296740 SM223186 RS15570 WP 000963150.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus



logo

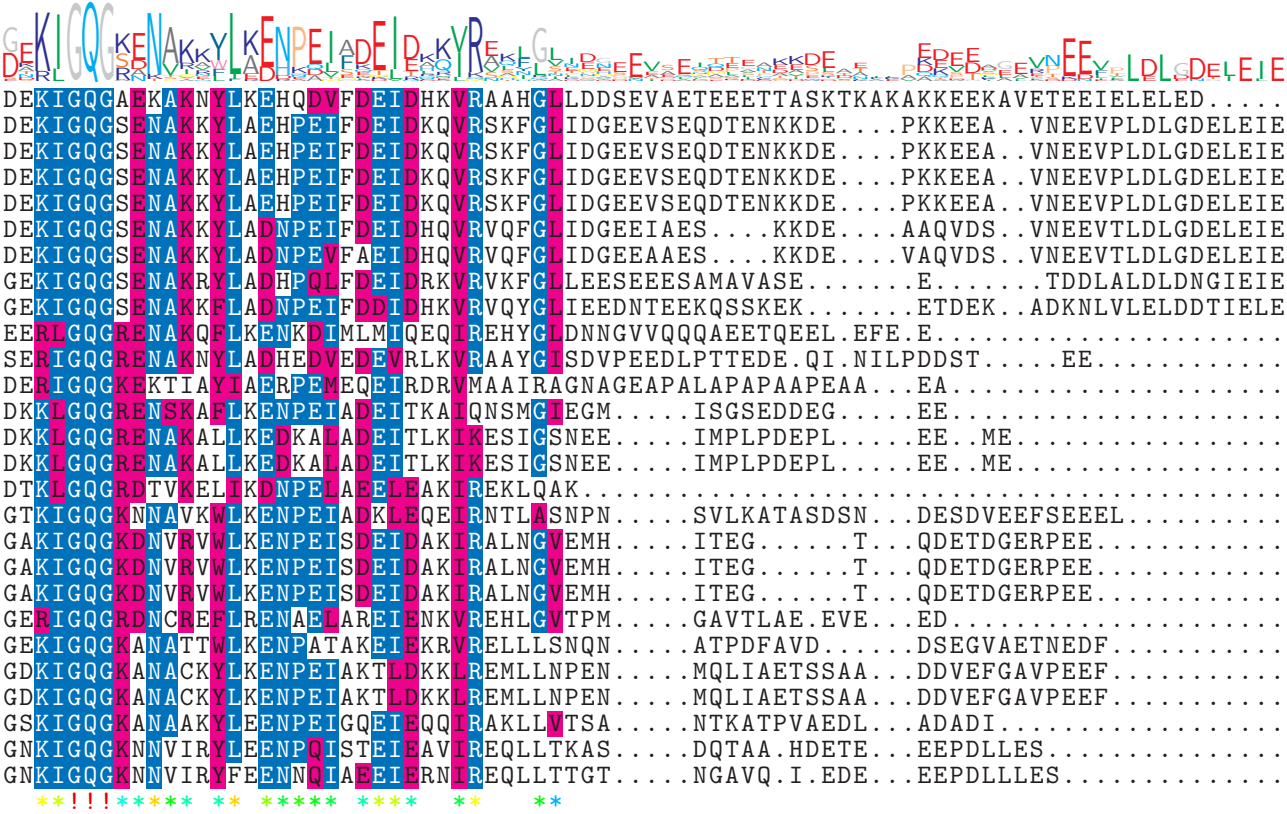
NTDB	id	600	KW2	RS01765	WP	011675413.1	VV	IDSVAAL	VP	KA	ED	GE	IG	DSSV	GL	QAR	MS	QAM	RKL	AG	CH	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	SP	ET	TP	PG	GR	AL	KF	YA		233																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	269	KZH43	RS08665	WP	001085462.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AG	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	228	SPD	RS09265	WP	001085462.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AG	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	194	SPR	RS08825	WP	001085462.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AG	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	159	SP	RS09750	WP	001085462.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AG	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	499	SM12261	RS08315	WP	078228268.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AG	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	527	SMSK321	RS11065	WP	001085454.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AG	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	453	Spy49	1753c	ACI	62003.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YA		232																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	408	SMU	RS09530	WP	002262392.1	VV	VDSVAAL	VP	RA	ED	GD	IG	DSHV	GL	QAR	MS	QAM	RKL	AS	IN	KT	KT	TA	IF	IN	QL	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YS		232																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	115	BSU	16940	NP	389576.2	VV	VDSVAAL	VP	KA	ED	GE	IG	DSDH	VGL	QAR	LS	QAL	RKL	SG	AI	NS	KT	IA	IF	IN	QI	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YS		217																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	625	LCA	RS02525	WP	011374196.1	V	VDSVAAL	VP	RA	ED	GE	IG	DSDH	VGL	QAR	LS	QAL	RKL	SG	T	IN	KT	KT	IA	IF	IN	QI	RE	KV	GV	M	.	FG	NP	ET	TP	PG	GR	AL	KF	YS		219																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	1313	DR	RS12030	WP	010888966.1	VV	VDSVAAL	TP	RA	ED	GE	IG	DMDG	SL	PGL	QAR	LS	QAL	RKL	TA	IL	SK	TG	TA	IF	IN	QV	RE	KI	GV	M	.	Y	GN	PE	TT	TP	GG	RA	LK	FYA		231																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	1245	Cj1673c	YP	002345041.1	V	VDSVAAL	TP	KA	ED	GE	IG	DMDG	DQ	HV	GL	QAR	LS	QAL	RKL	TG	IV	HK	MN	TT	VI	FI	NQ	IR	MK	IG	AM	GY	G	T	P	ET	TT	GG	NAL	KFYA		219																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1214	NCTC11637	00359	SQJ03206.1	VV	VDSVAAL	TP	KA	ED	GE	IG	DMDG	DQ	HV	GL	QAR	LS	MS	HAL	RK	IT	GV	LH	KM	NT	TL	FI	NQ	IR	MK	IG	MM	GY	G	S	P	ET	TT	GG	NAL	KFYA		221																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	1211	C694	RS00795	WP	000963128.1	VV	VDSVAAL	TP	KA	ED	GE	IG	DMDG	DQ	HV	GL	QAR	LS	MS	HAL	RK	IT	GV	LH	KM	NT	TL	FI	NQ	IR	MK	IG	MM	GY	G	S	P	ET	TT	GG	NAL	KFYA		221																																																																																																																																																																																																																																																																																																																																																																																																																															
NTDB	id	1334	RAOC	RS04870	WP	004918236.1	VV	VDSVAAL	TP	KA	ED	GE	IG	DMDG	SK	ML	HL	AR	LS	MS	QAL	RKL	TS	IS	SK	TK	CT	VI	FI	NQ	LR	DK	IG	V	.	FG	SP	ET	TP	GG	NAL	KFYA		227																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	1389	A4U84	RS07560	WP	021112712.1	V	VDSVAAL	TP	KA	ED	GE	IG	DMDG	SH	ML	QAR	LS	MS	QAL	RKL	T	AN	IK	NT	NCL	VV	FI	NQ	IR	MK	IG	V	.	FG	NP	ET	TP	GG	NAL	KFYA		235																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1130	NGFG	RS03960	WP	003688695.1	VV	VDSVAAL	VP	KA	ED	GE	IG	DMDG	SHV	GL	QAR	LS	MS	QAL	RKL	TG	HI	KT	NT	LV	VI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KF	YS		219																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1124	NGFG	RS03960	WP	003688695.1	VV	VDSVAAL	VP	KA	ED	GE	IG	DMDG	SHV	GL	QAR	LS	MS	QAL	RKL	TG	HI	KT	NT	LV	VI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KF	YS		219																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1123	OK783	RS03845	WP	003688695.1	VV	VDSVAAL	VP	KA	ED	GE	IG	DMDG	SHV	GL	QAR	LS	MS	QAL	RKL	TG	HI	KT	NT	LV	VI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KF	YS		219																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1427	RS	RS02760	WP	011000510.1	V	V	IDSVAAL	VP	KA	ED	GE	IG	DALP	GL	QAR	LS	MS	QAL	RKL	TG	IK	RT	NCL	VI	FI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KFYA		227																																																																																																																																																																																																																																																																																																																																																																																																																																		
NTDB	id	296740	SM223186	RS15570	WP	000963150.1	VV	VDSVAAL	TP	KA	ED	GE	IG	DSSH	ML	QAR	MS	QAM	RKL	AG	NL	KQ	SN	TL	FI	FI	NQ	IR	MK	IG	V	.	FG	NP	ET	TP	GG	NAL	KFYA		220																																																																																																																																																																																																																																																																																																																																																																																																																																			
NTDB	id	1165	A1552VC	RS01565	WP	000344154.1	V	V	VDSVAAL	TP	KA	ED	GE	IG	DSSH	ML	QAR	LS	MS	QAM	RKL	TG	NL	KQ	SN	CM	CI	FI	NQ	IR	MK	IG	V	.	FG	NP	ET	TP	GG	NAL	KFYA		218																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1142	GTF74	RS11550	WP	000344154.1	V	V	VDSVAAL	TP	KA	ED	GE	IG	DSSH	ML	QAR	LS	MS	QAM	RKL	TG	NL	KQ	SN	CM	CI	FI	NQ	IR	MK	IG	V	.	FG	NP	ET	TP	GG	NAL	KFYA		218																																																																																																																																																																																																																																																																																																																																																																																																																																	
NTDB	id	1205	PSJM300	05545	AFN	77183.1	V	V	VDSVAAL	VP	KA	ED	GE	IG	DSDH	VGL	QAR	LS	MS	QAL	RK	IT	GN	I	KN	AN	CL	VI	FI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KFYA		218																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	1022	ACIAD	RS06390	WP	004925639.1	V	V	VDSVAAL	TP	KA	ED	GE	IG	DSSH	ML	QAR	LS	MS	QAL	RK	IT	GN	AK	RS	N	CM	VI	FI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KFYA		218																																																																																																																																																																																																																																																																																																																																																																																																																																
NTDB	id	1074	ABD1	RS10195	WP	000344167.1	V	V	VDSVAAL	TP	KA	ED	GE	IG	DSSH	ML	QAR	LS	MS	QAL	RK	IT	GN	AK	RS	N	CM	VI	FI	NQ	IR	MK	IG	V	.	FG	SP	ET	TP	GG	NAL	KFYA		218																																																																																																																																																																																																																																																																																																																																																																																																																																
consensus							***!!!!!!	!*	!!!!	*!!!!	****	!!!!	****	!!!!	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****	****

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 296740 SM223186 RS15570 WP 000963150.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus



logo

NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
NTDB id 1130 NGFG RS03960 WP 003688695.1
NTDB id 1124 NGFG RS03960 WP 003688695.1
NTDB id 1123 OK783 RS03845 WP 003688695.1
NTDB id 1427 RS RS02760 WP 011000510.1
NTDB id 296740 SM223186 RS15570 WP 000963150.1
NTDB id 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus



387
385
385
385
385
381
381
377
382
348
355
363
343
347
347
343
372
348
348
348
352
353
354
354
347
349
349

logo

		LEE	
NTDB id 600 KW2 RS01765 WP 011675413.1	...	387	
NTDB id 269 KZH43 RS08665 WP 001085462.1	IEE	388	
NTDB id 228 SPD RS09265 WP 001085462.1	IEE	388	
NTDB id 194 SPR RS08825 WP 001085462.1	IEE	388	
NTDB id 159 SP RS09750 WP 001085462.1	IEE	388	
NTDB id 499 SM12261 RS08315 WP 078228268.1	IEE	384	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	IEE	384	
NTDB id 453 Spy49 1753c ACI62003.1	D..	378	
NTDB id 408 SMU RS09530 WP 002262392.1	D..	383	
NTDB id 115 BSU 16940 NP 389576.2	...	348	
NTDB id 625 LCA RS02525 WP 011374196.1	...	355	
NTDB id 1313 DR RS12030 WP 010888966.1	...	363	
NTDB id 1245 Cj1673c YP 002345041.1	...	343	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	...	347	
NTDB id 1211 C694 RS00795 WP 000963128.1	...	347	
NTDB id 1334 RAOC RS04870 WP 004918236.1	...	343	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	...	372	
NTDB id 1130 NGFG RS03960 WP 003688695.1	...	348	
NTDB id 1124 NGFG RS03960 WP 003688695.1	...	348	
NTDB id 1123 OK783 RS03845 WP 003688695.1	...	348	
NTDB id 1427 RS RS02760 WP 011000510.1	...	352	
NTDB id 296740 SM223186 RS15570 WP 000963150.1	...	353	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	...	354	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	...	354	
NTDB id 1205 PSJM300 05545 AFN77183.1	...	347	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	...	349	
consensus			

- non conserved
- similar
- ≥ 50% conserved