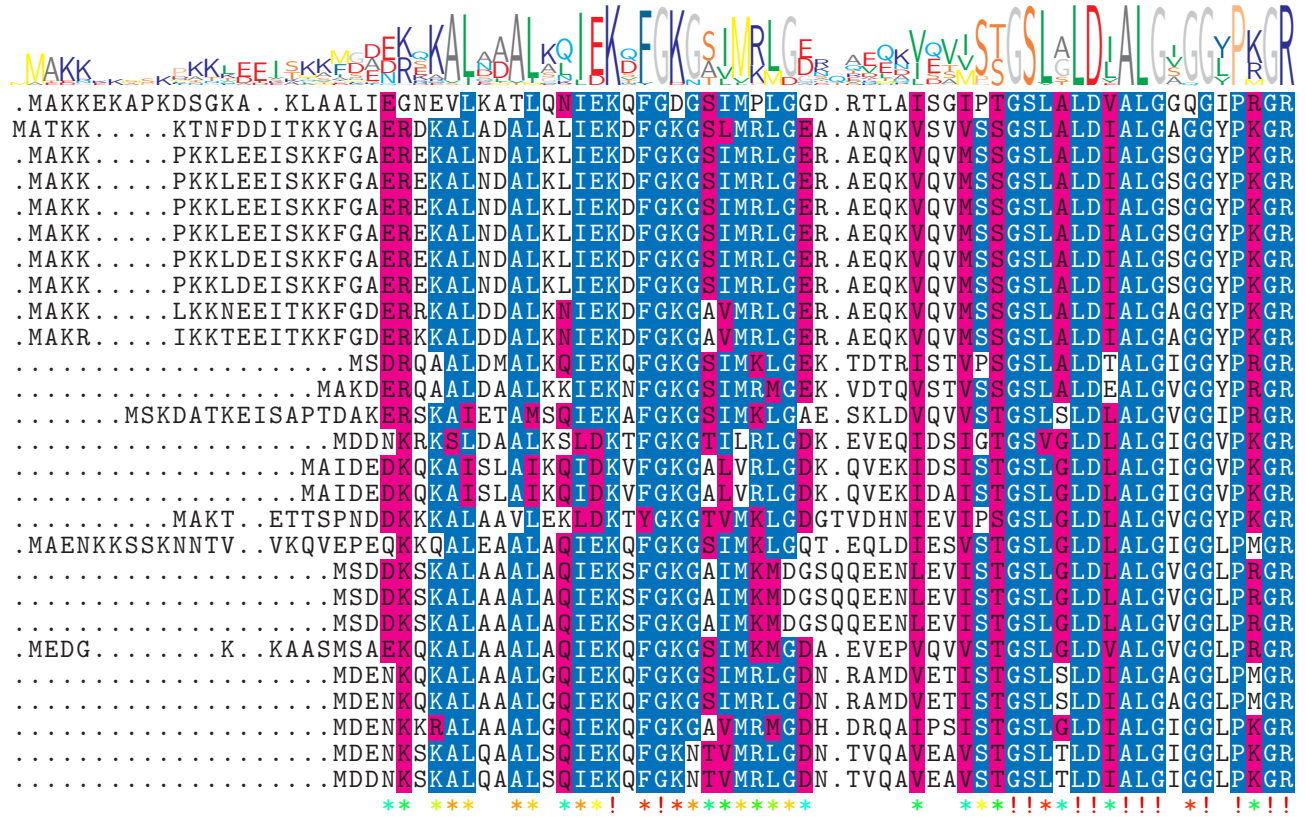
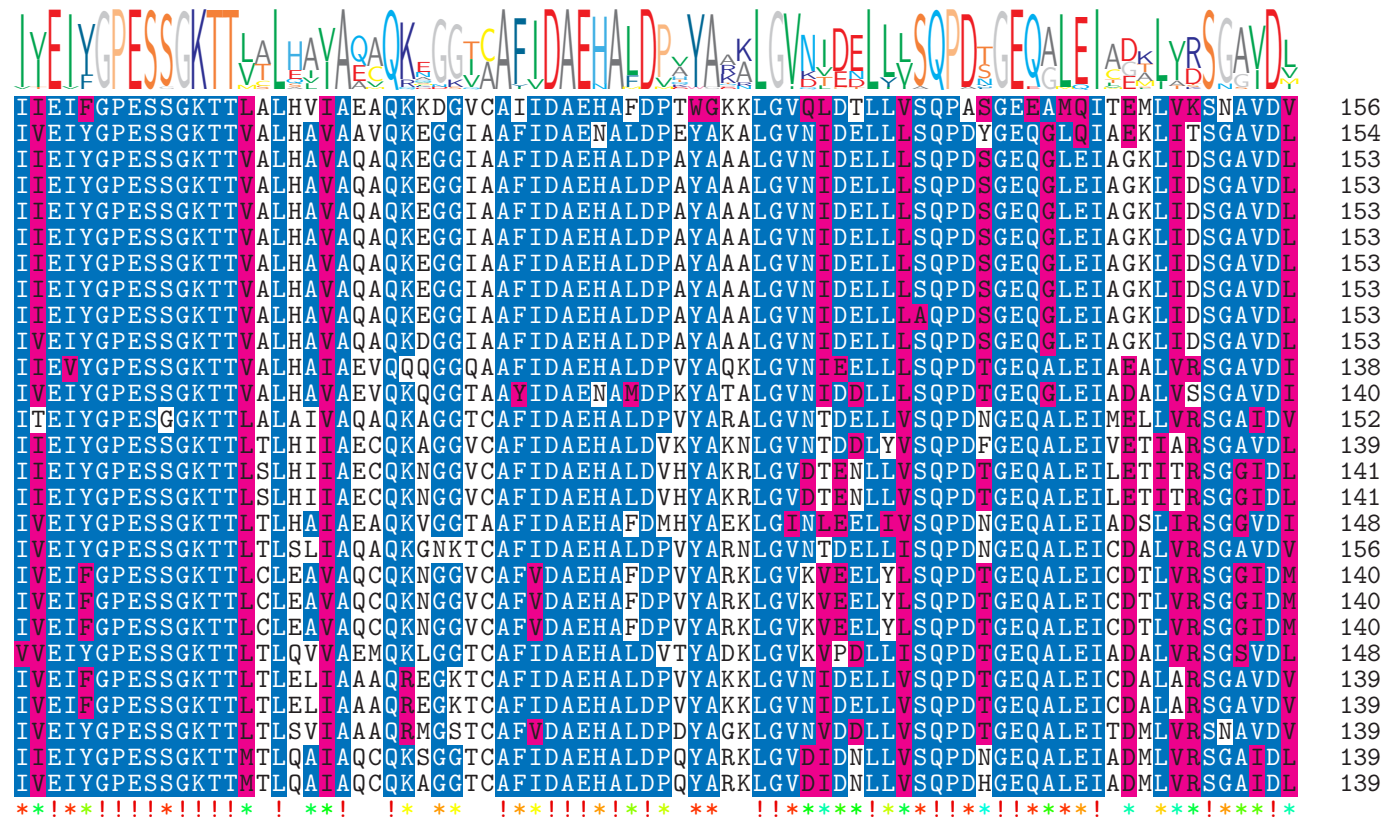


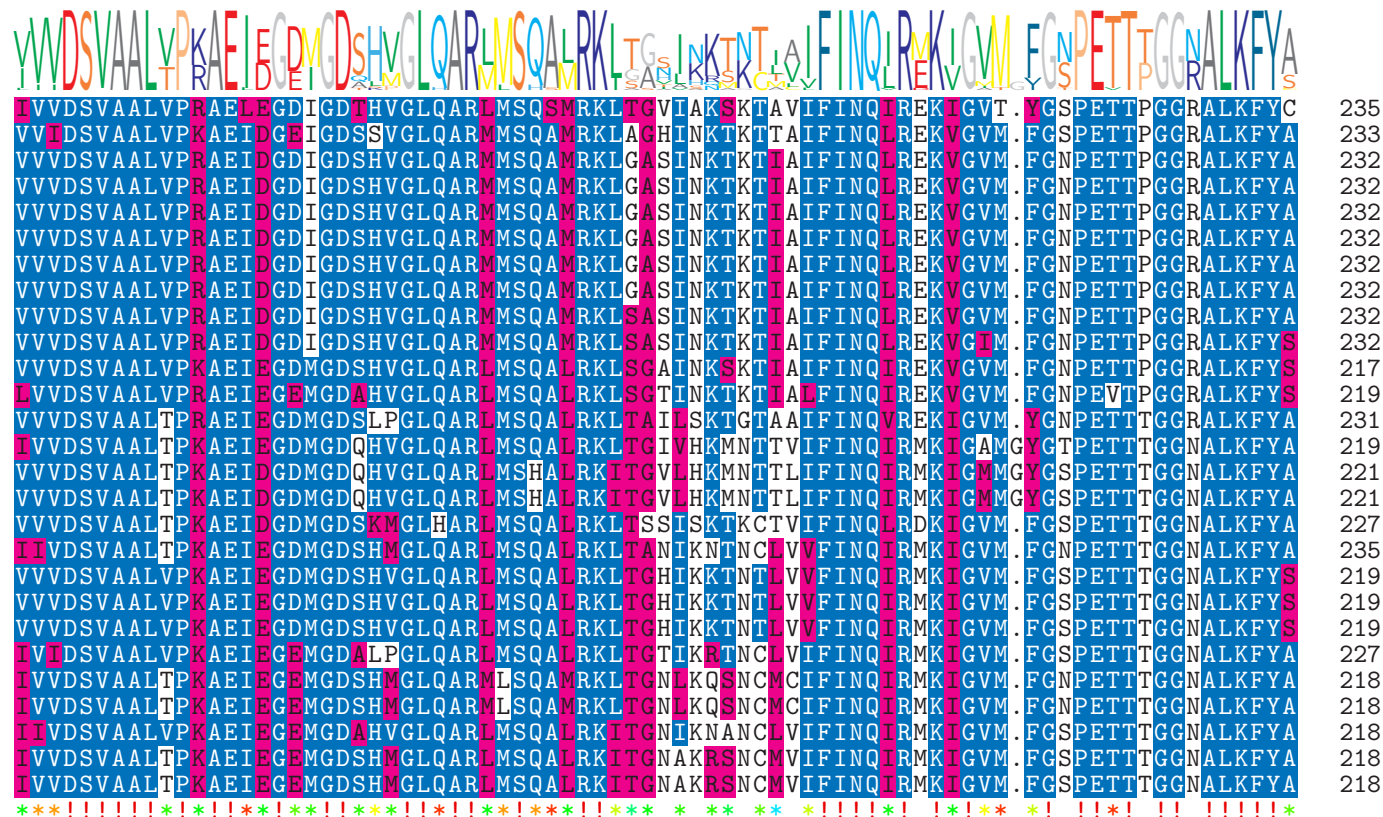
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NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 WP 078228268.1
NTDB id 527 SMSK321 RS11065 WP 001085454.1
NTDB id 453 Spy49 1753c ACI62003.1
NTDB id 408 SMU RS09530 WP 002262392.1
NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 01088966.1
NTDB id 1245 Cj1673c YP 002345041.1
NTDB id 1211 C694 RS00795 WP 000963128.1
NTDB id 1214 NCTC11637 00359 SQJ03206.1
NTDB id 1334 RAOC RS04870 WP 004918236.1
NTDB id 1389 A4U84 RS07560 WP 021112712.1
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NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
consensus



NTDB id 347786 ETAA8 RS14195 WP 145100520.1
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NTDB id 600 KW2 RS01765 WP 011675413.1
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NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
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NTDB id 347786 ETAA8 RS14195 WP 145100520.1	SCRIDVR	RRVTQI....KEG	EDVVG	QQRVRA	IVKNKV	VAPPF	RVAEF	DM	MHTNG	ISFEG	DVLD	MGVEQK	VLTR	SGS	WFKYN	310	
NTDB id 600 KW2 RS01765 WP 011675413.1	SVRLDVR	RGSTKIEEGS.GDN	KTKIG	KITIK	KVVKNK	VAPPF	KVALV	DIM	FGE	GISST	GELIN	IAVEEG	ITIK	KSG	WFAYN	312	
NTDB id 269 KZH43 RS08665 WP 001085462.1	SVRLDVR	RGNTQIKGTG.DQK	ETNVG	KETIK	KVVKNK	VAPPF	KEAVV	EIMY	GEGIS	KTGELL	KIASDL	DI	IKK	AGAW	YSYK	311	
NTDB id 228 SPD RS09265 WP 001085462.1	SVRLDVR	RGNTQIKGTG.DQK	ETNVG	KETIK	KVVKNK	VAPPF	KEAVV	EIMY	GEGIS	KTGELL	KIASDL	DI	IKK	AGAW	YSYK	311	
NTDB id 194 SPR RS08825 WP 001085462.1	SVRLDVR	RGNTQIKGTG.DQK	ETNVG	KETIK	KVVKNK	VAPPF	KEAVV	EIMY	GEGIS	KTGELL	KIASDL	DI	IKK	AGAW	YSYK	311	
NTDB id 159 SP RS09750 WP 001085462.1	SVRLDVR	RGNTQIKGTG.DQK	ETNVG	KETIK	KVVKNK	VAPPF	KEAVV	EIMY	GEGIS	KTGELL	KIASDL	DI	IKK	AGAW	YSYK	311	
NTDB id 499 SM12261 RS08315 WP 078228268.1	SVRLDVR	RGSTQIKGTG.DQK	DTNVG	KETIK	KVVKNK	VAPPF	KEAFV	EIMY	GEGIS	KTGELL	KIASDL	DI	IKK	AGAW	YSYK	311	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	SVRLDVR	RGSTQIKGTG.DQK	DTNVG	KETIK	KVVKNK	VAPPF	KEAFV	EIMY	GEGIS	KTGELL	KIASDL	DI	IKK	AGAW	YSYK	311	
NTDB id 453 Spy49 1753c ACI62003.1	SVRLDVR	GTQIKGTG.DQK	DSSIG	KETIK	KVVKNK	VAPPF	KVAEV	EIMY	GEGIS	RTGELV	KIASDL	DI	IKK	AGAW	FSYN	311	
NTDB id 408 SMU RS09530 WP 002262392.1	SVRLDVR	RGNTQIKGTG.EQK	DSNIG	KETIK	KVVKNK	VAPPF	KEAFV	EIIY	GEGIS	RTGELV	KIASDL	GI	IKK	AGAW	FSYN	311	
NTDB id 115 BSU 16940 NP 389576.2	SVRLEVR	RAEQLKQGN.....	DVMGN	KTKIK	VVKNK	VAPPF	RTAEV	DIMY	GEGIS	KEGEI	IDL	GT	ELD	IVQK	SGS	WYSYE	292
NTDB id 625 LCA RS02525 WP 011374196.1	TVRLEVR	RAETIKNGT.....	DMIGN	RARIK	VVKNK	VAPPF	KVAEV	DIMY	GQGIS	RTGELV	DMAVEK	DI	INK	SGS	WYSYG	294	
NTDB id 1313 DR RS12030 WP 010888966.1	SVRLDVR	KIGQ....PTK	VGNDA	VANTV	KIKTK	VKNKVA	APFKE	VELAL	VY	GKGF	DQLSD	LV	GLA	ADMD	IKKAGS	FYSYG	307
NTDB id 1245 Cj1673c YP 002345041.1	SVRLDVR	KKVAT....L.KQ	NEEP	IGNRV	KVVKNK	VAPPF	RQAEF	DVM	FGEGL	SREGEL	IDYGV	KLD	IVD	DKS	GAWFS	SYK	294
NTDB id 1211 C694 RS00795 WP 000963128.1	SVRIDIR	RIAS....L.KQ	NEQH	IGNRA	KAKVVKNK	VAPPF	REAEF	DIM	FGE	GISKEGE	IIDYGV	KLD	IVD	DKS	GAWLS	SYQ	296
NTDB id 1214 NCTC11637 00359 SQJ03206.1	SVRIDIR	RIIAA....L.KQ	NEQH	IGNRA	KAKVVKNK	VAPPF	REAEF	DIM	FGE	GISKEGE	IIDYGV	KLD	IVD	DKS	GAWLS	SYQ	296
NTDB id 1334 RAOC RS04870 WP 004918236.1	SVRIDIR	RSLSDTGKIKDKS	GEVIGN	RTKV	VVKNK	VAPPF	KSAEF	DIMY	GEGV	SKVGE	ILDV	ATDL	DI	IQK	SGS	WFSYQ	307
NTDB id 1389 A4U84 RS07560 WP 021112712.1	SVRLDIR	RCGV....V.KDG	DEIIG	SETKV	VVKNK	VAPPF	REVQF	DIMY	GEGIS	RMNELL	ILAE	ANGF	IKK	SGA	WFSYD	310	
NTDB id 1130 NGFG RS03960 WP 003688695.1	SVRLDIR	RRTGS....I.KKG	EEVLG	NETRV	KVIKNK	VAPPF	RQAEF	DILY	GEGIS	WEGEL	IDIGV	KND	II	INK	SGAW	SYN	294
NTDB id 1124 NGFG RS03960 WP 003688695.1	SVRLDIR	RRTGS....I.KKG	EEVLG	NETRV	KVIKNK	VAPPF	RQAEF	DILY	GEGIS	WEGEL	IDIGV	KND	II	INK	SGAW	SYN	294
NTDB id 1123 OK783 RS03845 WP 003688695.1	SVRLDIR	RRTGS....I.KKG	EEVLG	NETRV	KVIKNK	VAPPF	RQAEF	DILY	GEGIS	WEGEL	IDIGV	KND	II	INK	SGAW	SYN	294
NTDB id 1427 RS RS02760 WP 011000510.1	SVRLDIR	RRTGS....I.KKG	EEVLG	NETRV	KVVKNK	VAPPF	REAI	FIDILY	GAGV	SREGE	IIDL	GV	EAK	VVEK	SGAW	SYN	302
NTDB id 1165 A1552VC RS01565 WP 000344154.1	SVRLDIR	RRTGA....I.KEG	EEVVG	NETRI	KVVKNK	IAAPF	KEANTQ	IMY	GQGF	NREGEL	IDLGV	VKHK	MVEK	SGA	WYSYN	293	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	SVRLDIR	RRTGA....I.KEG	EEVVG	NETRI	KVVKNK	IAAPF	KEANTQ	IMY	GQGF	NREGEL	IDLGV	VKHK	MVEK	SGA	WYSYN	293	
NTDB id 1205 PSJM300 05545 AFN77183.1	SVRLDIR	RRTGA....V.KEG	DEVVG	SETRV	KVVKNK	VAPPF	RQAEF	QILY	GKGI	YRNGE	IIDL	GV	QGL	VVEK	SGAW	AYK	293
NTDB id 1074 ABD1 RS10195 WP 000344167.1	SVRLDIR	RRTGS....V.KEG	DEIIG	SETKV	VVKNK	MAPPF	KEAIFQ	ILY	GKGT	NQLGEL	VDLAV	QQD	IV	QK	AGAW	SYQ	293
NTDB id 1022 ACIAD RS06390 WP 004925639.1	SVRLDIR	RRTGS....V.KEG	DEIIG	SETKV	VVKNK	MAPPF	REAIFQ	ILY	GKGV	NQLGEL	VDLAV	QQD	IV	QK	AGAW	SYQ	293
consensus	***!***!*		*	*	*	*****!***!!*!!*!!*	*		*****!***	*****	***		***	*	!*****!		

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NTDB id 347786 ETAA8 RS14195 WP 145100520.1	DAYIGQGKEKARAYLAENTAIRDEIRDKILASGIVGVKEVAPEPGEED....EGGPD.....E.....	364
NTDB id 600 KW2 RS01765 WP 011675413.1	DEKIGQGAEKAKNYLKEHQDVFEIDHKVRAAHGLDDSEVAETEEETTASKTAKAKKEEKAVETEEIELELED....	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	DEKIGQGSNAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 228 SPD RS09265 WP 001085462.1	DEKIGQGSNAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 194 SPR RS08825 WP 001085462.1	DEKIGQGSNAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 159 SP RS09750 WP 001085462.1	DEKIGQGSNAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIE	385
NTDB id 499 SM12261 RS08315 WP 078228268.1	DEKIGQGSNAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAES....KKDE....AAQVDS..VNEEVTLDLGDELEIE	381
NTDB id 527 SMSK321 RS11065 WP 001085454.1	DEKIGQGSNAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAES....KKDE....VAQVDS..VNEEVTLDLGDELEIE	381
NTDB id 453 Spy49 1753c ACI62003.1	GEKIGQGSNAKKRYLADHPQLFDEIDRKVRVKFGLLEESSEESAMAVASE.....E.....TDDLALDLNGIEIE	377
NTDB id 408 SMU RS09530 WP 002262392.1	GEKIGQGSNAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELE	382
NTDB id 115 BSU 16940 NP 389576.2	EERLGQGRENAKQFLKENKDIMLMIQEQIREHYGLDNNGVVQQQAETQEEL.EFE.E.....	348
NTDB id 625 LCA RS02525 WP 011374196.1	SERIGQGRENAKNYLADHEDVEDEVRLKVRAAYGTSADVPEEDLPTTEDE.QI.NILPDDST.....EE.....	355
NTDB id 1313 DR RS12030 WP 010888966.1	DERIGQGKEKTIAIYIAERPMEQEIRDRVMAAIRAGNAGEAPALAPAPAAPEAAEA.....	363
NTDB id 1245 Cj1673c YP 002345041.1	DKKLGQGRENSKAFLENKEPIADEITKAIQNSMGIEGM....ISGSEDDE..GEE.....	343
NTDB id 1211 C694 RS00795 WP 000963128.1	DKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEE....IMPLPDEP..LEEME.....	347
NTDB id 1214 NCTC11637 00359 SQJ03206.1	DKKLGQGRENAKALLKEDKALADEITLKIKESIGSNEE....IMPLPDEP..LEEME.....	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	DTKLGQGRDITVKELIKDNPELAEELEAKIREKLQAK.....	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	GTKIGQGGKNNAVKWLKENPEIADKLEQEIRNTLASNP.....SVLKATASDSNDES DV..EEFSEEEL.....	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	GAKIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMH....ITEGTQDET.....D..GERPEE.....	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	GAKIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMH....ITEGTQDET.....D..GERPEE.....	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	GAKIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMH....ITEGTQDET.....D..GERPEE.....	348
NTDB id 1427 RS RS02760 WP 011000510.1	GERIGQGRDNCREFLRENAELAREIENKVREHLGVTPM....GAVTLA.EEVEED.....	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	GDKIGQGGKANACKYLLKENPEIAKTLDDKKLREMLLNPN.....MQLIAETSSAADDVEF..GAVPEEF.....	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	GDKIGQGGKANACKYLLKENPEIAKTLDDKKLREMLLNPN.....MQLIAETSSAADDVEF..GAVPEEF.....	354
NTDB id 1205 PSJM300 05545 AFN77183.1	GSKIGQGGKANAAYLEENPEIGQIEEQQIRAKLLVTSA....NTKATPVAEDLADAD...I.....	347
NTDB id 1074 ABD1 RS10195 WP 000344167.1	GNKIGQGGKNNVIRYFEENNQIAEEIERNIREQLLTGT....NGAVQ.I.EDEEEDPD...LLES.....	349
NTDB id 1022 ACIAD RS06390 WP 004925639.1	GNKIGQGGKNNVIRYLEENPQISTEIEAVIREQLLTKAS....DQTAA.HDETEEEDPD...LLES.....	349
consensus	***!!!***** ** ***** ***** ** *	

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NTDB id 347786 ETAA8 RS14195 WP 145100520.1	...	364
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 1211 C694 RS00795 WP 000963128.1	...	347
NTDB id 1214 NCTC11637 00359 SQJ03206.1	...	347
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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 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 1074 ABD1 RS10195 WP 000344167.1	...	349
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349
consensus		

-  non conserved
-  similar
-  ≥ 50% conserved