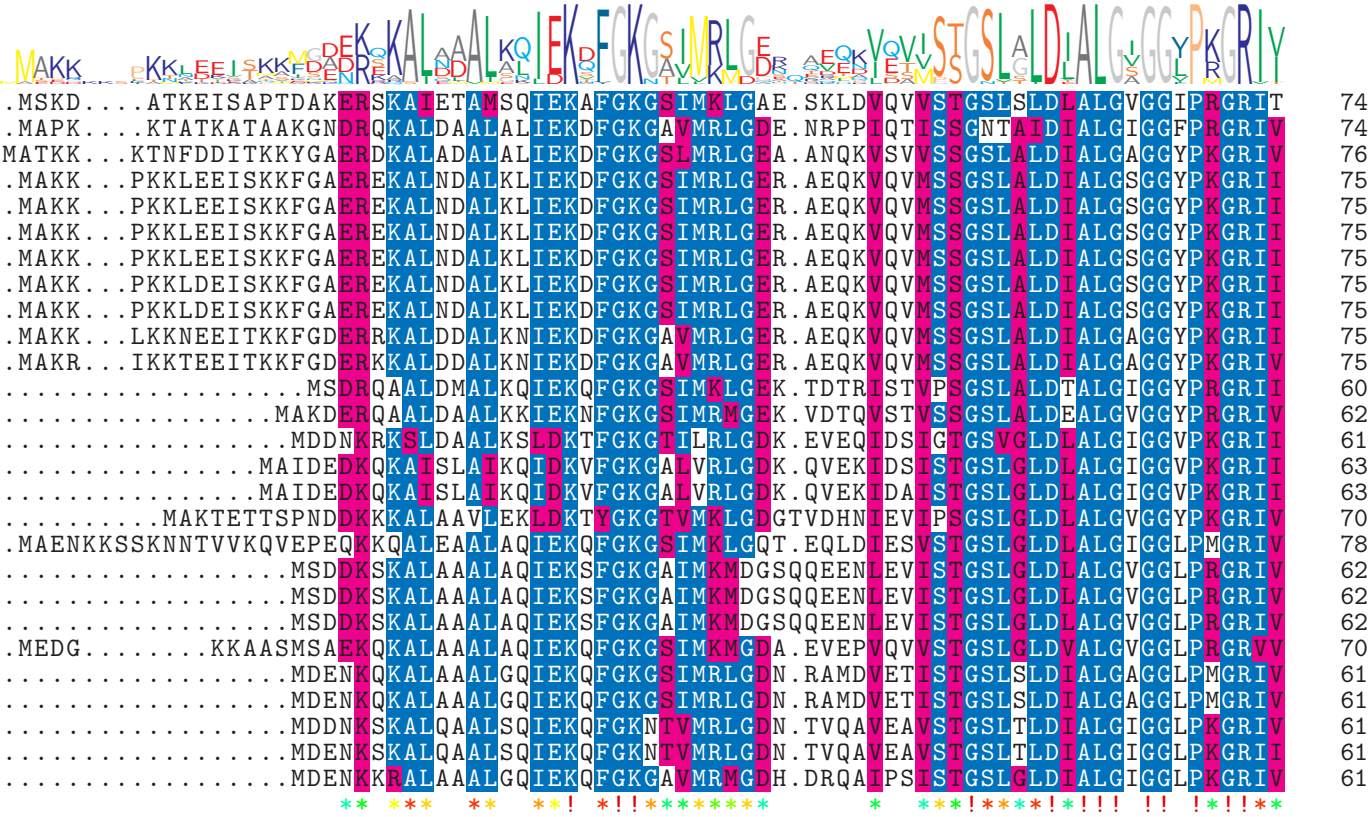
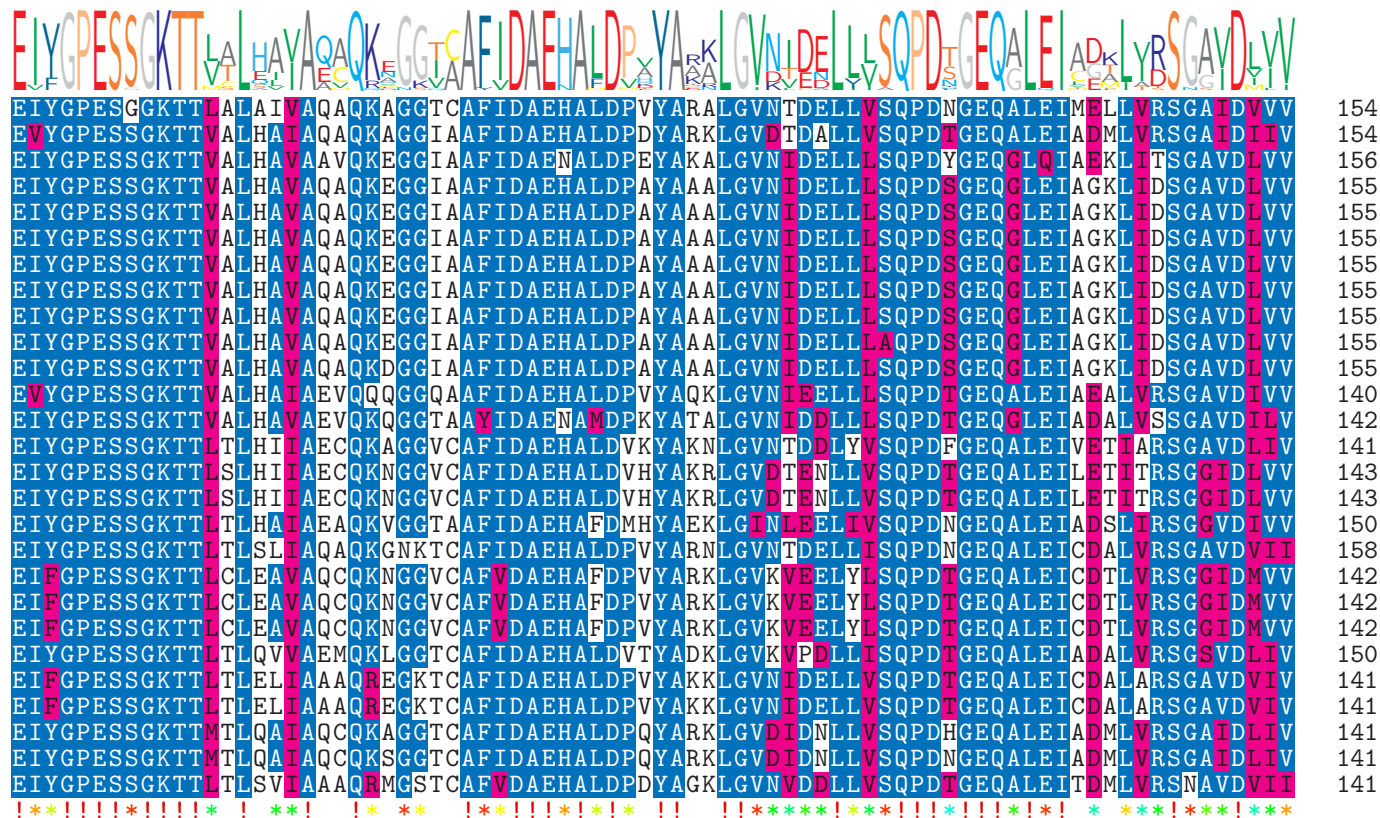


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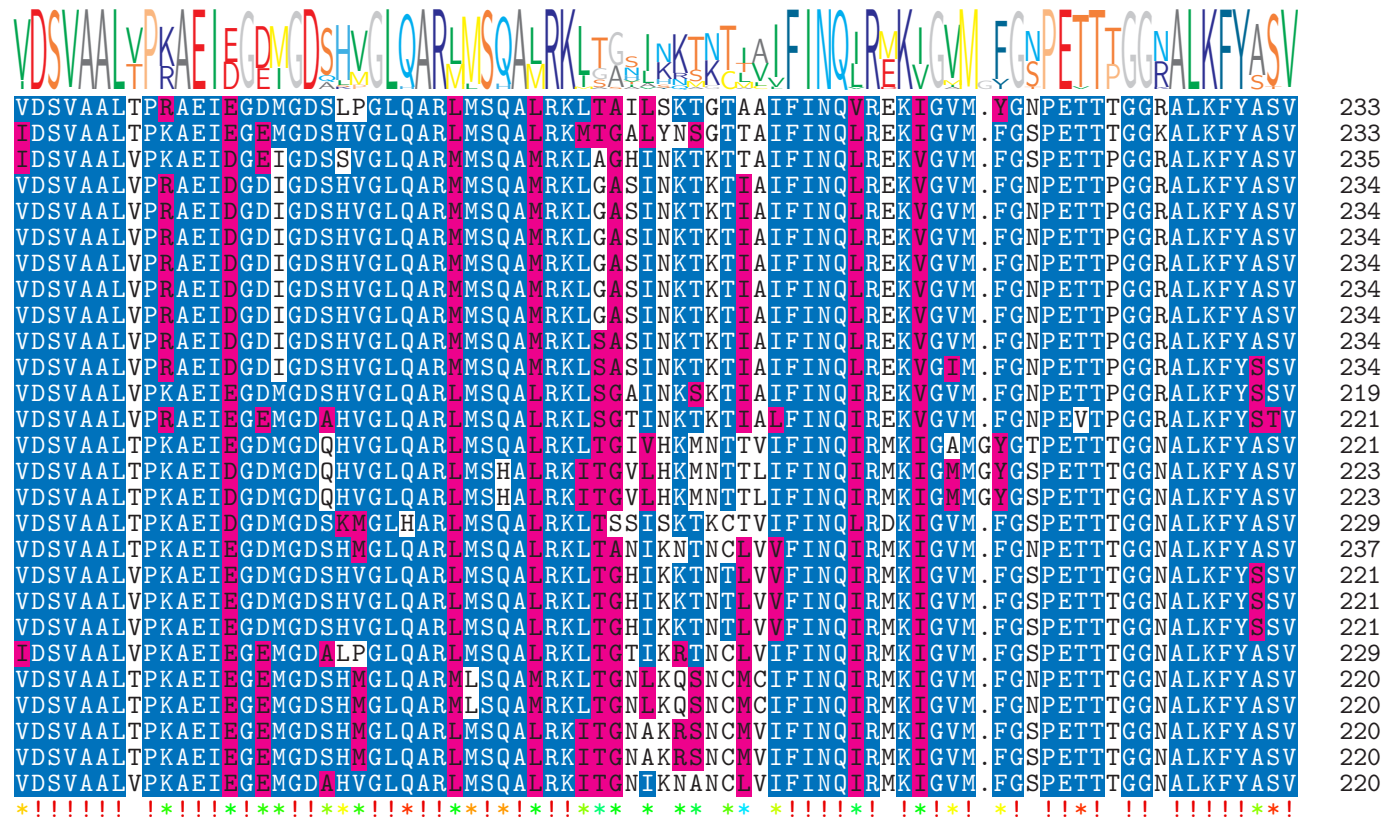
NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 122883 ARO RS09070 WP 003857444.1
NTDB id 600 KW2 RS01765 WP 011675413.1
NTDB id 269 KZH43 RS08665 WP 001085462.1
NTDB id 228 SPD RS09265 WP 001085462.1
NTDB id 194 SPR RS08825 WP 001085462.1
NTDB id 159 SP RS09750 WP 001085462.1
NTDB id 499 SM12261 RS08315 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 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
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 1165 A1552VC RS01565 WP 000344154.1
NTDB id 1142 GTF74 RS11550 WP 000344154.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1205 PSJM300 05545 AFN77183.1
consensus



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NTDB id 1313 DR RS12030 WP 010888966.1
NTDB id 122883 ARO RS09070 WP 003857444.1
NTDB id 600 KW2 RS01765 WP 011675413.1
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NTDB id 1074 ABD1 RS10195 WP 000344167.1
NTDB id 1205 PSJM300 05545 AFN77183.1
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NTDB id 1313 DR RS12030 WP 010888966.1	RLDVRKIGQ...PTKVGND	AVANTV	KIKTVKNKVA	APPFKE	VELALVY	GKGFDQLS	DLVGLA	ADMDI	IKKAGS	FYSY	GD	309			
NTDB id 122883 ARO RS09070 WP 003857444.1	RCDIRRIQTLKDGQ....DA	IGNRTRL	KVVKNKV	SPPFK	IAEFD	DIMYGE	GISRESS	VIDL	AVDNGI	VKKSGS	WFTYE	GE	308		
NTDB id 600 KW2 RS01765 WP 011675413.1	RLDVRGSTKIEEGS.GDNKTQ	IGKITKI	KVVKNKV	APPFK	VALVD	IMFGEG	ISSTGEL	LNIA	VEEGI	IKKSGA	WFAY	NDE	314		
NTDB id 269 KZH43 RS08665 WP 001085462.1	RLDVRGNTQIKGTG.DQKETN	VGKETIK	KVVKNKV	APPFKE	AVVEI	IMYGE	GISKTGEL	LKIAS	DLDI	IKKAGA	WYSY	KDE	313		
NTDB id 228 SPD RS09265 WP 001085462.1	RLDVRGNTQIKGTG.DQKETN	VGKETIK	KVVKNKV	APPFKE	AVVEI	IMYGE	GISKTGEL	LKIAS	DLDI	IKKAGA	WYSY	KDE	313		
NTDB id 194 SPR RS08825 WP 001085462.1	RLDVRGNTQIKGTG.DQKETN	VGKETIK	KVVKNKV	APPFKE	AVVEI	IMYGE	GISKTGEL	LKIAS	DLDI	IKKAGA	WYSY	KDE	313		
NTDB id 159 SP RS09750 WP 001085462.1	RLDVRGNTQIKGTG.DQKETN	VGKETIK	KVVKNKV	APPFKE	AVVEI	IMYGE	GISKTGEL	LKIAS	DLDI	IKKAGA	WYSY	KDE	313		
NTDB id 499 SM12261 RS08315 WP 078228268.1	RLDVRGSTQIKGTG.DQKDTN	VGKETIK	KVVKNKV	APPFKE	AFVEI	IMYGE	GISKTGEL	LKIAS	DLDI	IKKAGA	WYSY	KDE	313		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	RLDVRGSTQIKGTG.DQKDTN	VGKETIK	KVVKNKV	APPFKE	AFVEI	IMYGE	GISKTGEL	LKIAS	DLDI	IKKAGA	WYSY	KDE	313		
NTDB id 453 Spy49 1753c ACI62003.1	RLDVRGTTQIKGTG.DQKDSS	IGKETIK	KVVKNKV	APPFK	VAEVE	IMYGE	GISRTGEL	VKIAS	DLDI	IKKAGA	WFSY	NGE	313		
NTDB id 408 SMU RS09530 WP 002262392.1	RLDVRGNTQIKGTG.EQKDSN	IGKETIK	KVVKNKV	APPFKE	AFVEI	IITYGE	GISRTGEL	VKIAS	DLGI	IKKAGA	WYSY	NGE	313		
NTDB id 115 BSU 16940 NP 389576.2	RLEVRRAEQLKQGN.....DV	MGNKTKI	KVVKNKV	APPFR	TAEVD	DIMYGE	GISKEGE	IIDL	GT	ELDIV	QKSGS	WYSY	EEE	294	
NTDB id 625 LCA RS02525 WP 011374196.1	RLEVRRAETIKNGT.....DM	IGNRARI	KVVKNKV	APPFK	VAEVD	DIMYGG	QISRTGEL	VDM	AVEKDI	INKSGS	WYSY	GSE	296		
NTDB id 1245 Cj1673c YP 002345041.1	RLDVRKVAT....L.KQNEEP	IGNRVKV	VVVKNKV	APPFR	QAEFD	VMFGEGL	SREGEL	IDYGV	KLDI	VDKSGA	WFSY	KDK	296		
NTDB id 1211 C694 RS00795 WP 000963128.1	RIDIRRIAS....L.KQNEQH	IGNRAKA	VVVKNKV	APPFRE	AEFD	IMFGEG	ISKEGE	IIDYGV	KLDI	VDKSGA	WLSY	QDK	298		
NTDB id 1214 NCTC11637 00359 SQJ03206.1	RIDIRRIAA....L.KQNEQH	IGNRAKA	VVVKNKV	APPFRE	AEFD	IMFGEG	ISKEGE	IIDYGV	KLDI	VDKSGA	WLSY	QDK	298		
NTDB id 1334 RAOC RS04870 WP 004918236.1	RIDIRRSLSDTGKIKDKSGEV	IGNRTKV	VVVKNKV	APPFKS	AEFD	DIMYGE	GVSKVGE	ILDV	ATDLDI	IQKSGS	WFSY	QDT	309		
NTDB id 1389 A4U84 RS07560 WP 021112712.1	RLDIRRCGV....V.KDGEI	IGSETKV	VVVKNKV	APPFREV	QFD	DIMYGE	GISRMNEL	LILAE	ANGFI	KKSGA	WFSY	DGT	312		
NTDB id 1130 NGFG RS03960 WP 003688695.1	RLDIRRTGS....I.KKGEVL	GNETRV	KVIKNKV	APPFRA	AEFD	DILYGE	GISWEGEL	IDIG	VKNDI	INKSGA	WYSY	NGA	296		
NTDB id 1124 NGFG RS03960 WP 003688695.1	RLDIRRTGS....I.KKGEVL	GNETRV	KVIKNKV	APPFRA	AEFD	DILYGE	GISWEGEL	IDIG	VKNDI	INKSGA	WYSY	NGA	296		
NTDB id 1123 OK783 RS03845 WP 003688695.1	RLDIRRTGS....I.KKGEVL	GNETRV	KVIKNKV	APPFRA	AEFD	DILYGE	GISWEGEL	IDIG	VKNDI	INKSGA	WYSY	NGA	296		
NTDB id 1427 RS RS02760 WP 011000510.1	RLDIRRIGS....I.KKGEDEV	VGNETK	VVVKNKV	APPFRE	AI	FIDILY	GAGVSREGE	IIDL	GV	EAKVVEKSGA	WYSY	NGE	304		
NTDB id 1165 A1552VC RS01565 WP 000344154.1	RLDIRRTGA....I.KEGEEV	VGNETRI	KVVKNK	IAAPFKE	ANTQIM	YGQGF	NREGEL	IDL	GVKHKM	VVEKSGA	WYSY	NGD	295		
NTDB id 1142 GTF74 RS11550 WP 000344154.1	RLDIRRTGA....I.KEGEEV	VGNETRI	KVVKNK	IAAPFKE	ANTQIM	YGQGF	NREGEL	IDL	GVKHKM	VVEKSGA	WYSY	NGD	295		
NTDB id 1022 ACIAD RS06390 WP 004925639.1	RLDIRRIGQ....V.KEGDEI	IGSETKV	VVVKNK	MAPPFRE	AI	FQILY	GKGVNQLGEL	VDL	AVQQ	NIVQKAGA	WYSY	QGN	295		
NTDB id 1074 ABD1 RS10195 WP 000344167.1	RLDIRRIGQ....V.KEGDEI	IGSETKV	VVVKNK	MAPPFRE	AI	FQILY	GKGTNQLGEL	VDL	AVQQ	DIVQKAGA	WYSY	QGN	295		
NTDB id 1205 PSJM300 05545 AFN77183.1	RLDIRRTGA....V.KEGDEV	VGSETR	VVVKNKV	APPFRA	AEFQ	I	LYGKGI	YRN	GEI	IDL	GV	QQGLVEKSGA	WAWY	AYKGS	295
consensus	!***!*	*	**	*****!***!!*****!*	*	*****!*	*****	*****	***	***	! !*****!				

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NTDB id 1313 DR RS12030 WP 010888966.1	RIGQGKEKTIAYIAERPMEQEIRDRVMAAIRAGNAGEAPALAPAPA.....APEAAEA.....	363
NTDB id 122883 ARO RS09070 WP 003857444.1	QLGGGKEKVRLSLKENPELTDELEDKIFKKLGVGKYAAASDELTDTPV...ELVPNV.....DFDDEADTEAD	373
NTDB id 600 KW2 RS01765 WP 011675413.1	KIGQGAEKAKNYLKEHQDVFEIDHKVRAAHGLDDSEVAETEEETTASKTAKAKKKEEKAVETEEIELELED.....	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE	387
NTDB id 228 SPD RS09265 WP 001085462.1	KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE	387
NTDB id 194 SPR RS08825 WP 001085462.1	KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE	387
NTDB id 159 SP RS09750 WP 001085462.1	KIGQGSENAKKYLAEHPEIFDEIDKQVRSKFGLIDGEEVSEQDTENKKDE....PKKEEA..VNEEVPLDLGDELEIEIE	387
NTDB id 499 SM12261 RS08315 WP 078228268.1	KIGQGSENAKKYLADNPEIFDEIDHQVRVQFGLIDGEEIAES....KKDE....AAQVDS..VNEEVTLDLGDELEIEIE	383
NTDB id 527 SMSK321 RS11065 WP 001085454.1	KIGQGSENAKKYLADNPEVFAEIDHQVRVQFGLIDGEEAAES....KKDE....VAQVDS..VNEEVTLDLGDELEIEIE	383
NTDB id 453 Spy49 1753c ACI62003.1	KIGQGSENAKRYLADHPQLFDEIDRKVRVKFGLLEESEEEESAMAVASE.....E.....TDDLALDLNGIEIED.	378
NTDB id 408 SMU RS09530 WP 002262392.1	KIGQGSENAKKFLADNPEIFDDIDHKVRVQYGLIEEDNTEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELED.	383
NTDB id 115 BSU 16940 NP 389576.2	RLGGGRENAKQFLKENKDIMLMIQEIQREHYGLDNNGVVQQAEETQEEL.EFE.E.....	348
NTDB id 625 LCA RS02525 WP 011374196.1	RIGQGRENAKNYLADHEDVEDEVRLKVRAAYGISDVPEEDLPTTEDE.QI.NILPDDST....EE.....	355
NTDB id 1245 Cj1673c YP 002345041.1	KLGGGRENSKAFLENPEIADIEITKAIQNSMGIEGMISGSEDD..EGEE.....	343
NTDB id 1211 C694 RS00795 WP 000963128.1	KLGGGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDE..PLEEM.E.....	347
NTDB id 1214 NCTC11637 00359 SQJ03206.1	KLGGGRENAKALLKEDKALADEITLKIKESIGSNEEIMPLPDE..PLEEM.E.....	347
NTDB id 1334 RAOC RS04870 WP 004918236.1	KLGGGRDITVKELIKDNPELAEELEAKIREKLQAK.....	343
NTDB id 1389 A4U84 RS07560 WP 021112712.1	KIGQGGKNNAVKWLKENPEIADKLEQEIRNTLASNPNSVLKATASDSNDES.DVEEFS.....EEEL.....	372
NTDB id 1130 NGFG RS03960 WP 003688695.1	KIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDETGER.....P.....EE.....	348
NTDB id 1124 NGFG RS03960 WP 003688695.1	KIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDETGER.....P.....EE.....	348
NTDB id 1123 OK783 RS03845 WP 003688695.1	KIGQGGKDNVRVWLKENPEISDEIDAKIRALNGVEMHITEGTQDETGER.....P.....EE.....	348
NTDB id 1427 RS RS02760 WP 011000510.1	RIGQGRDNCREFLRENAELAREIENKVREHLGVTPMGAVTLA.EEVEED.....	352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	KIGQGGKANACKYLKENPEIAKTLDDKLLREMLLNPNMQLIAETSSAADV.EFGAVP.....EEF.....	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	KIGQGGKANACKYLKENPEIAKTLDDKLLREMLLNPNMQLIAETSSAADV.EFGAVP.....EEF.....	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	KIGQGGKNNVIRYLEENPQISTEIEAVIREQLLTKASDQTA..HDETEEEP.DLL..E.....S.....	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	KIGQGGKNNVIRYFEENNQIAEEIERNIREQLLTTGTNGAVQ..I.EDEEEP.DLL..L.....ES.....	349
NTDB id 1205 PSJM300 05545 AFN77183.1	KIGQGGKANAAKYLEENPEIGQEIEQQIRAKLLVTSANTKATPVAEDLADA.DI.....	347
consensus	**!!!***** ** ***** ***** ** *	

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NTDB id 1313 DR RS12030 WP 010888966.1	E...	363
NTDB id 122883 ARO RS09070 WP 003857444.1	AED	376
NTDB id 600 KW2 RS01765 WP 011675413.1	...	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	E..	388
NTDB id 228 SPD RS09265 WP 001085462.1	E..	388
NTDB id 194 SPR RS08825 WP 001085462.1	E..	388
NTDB id 159 SP RS09750 WP 001085462.1	E..	388
NTDB id 499 SM12261 RS08315 WP 078228268.1	E..	384
NTDB id 527 SMSK321 RS11065 WP 001085454.1	E..	384
NTDB id 453 Spy49 1753c ACI62003.1	...	378
NTDB id 408 SMU RS09530 WP 002262392.1	...	383
NTDB id 115 BSU 16940 NP 389576.2	...	348
NTDB id 625 LCA RS02525 WP 011374196.1	...	355
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
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
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NTDB id 1165 A1552VC RS01565 WP 000344154.1	...	354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	...	354
NTDB id 1022 ACIAD RS06390 WP 004925639.1	...	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	...	349
NTDB id 1205 PSJM300 05545 AFN77183.1	...	347

consensus

 non conserved
 similar
 ≥ 50% conserved