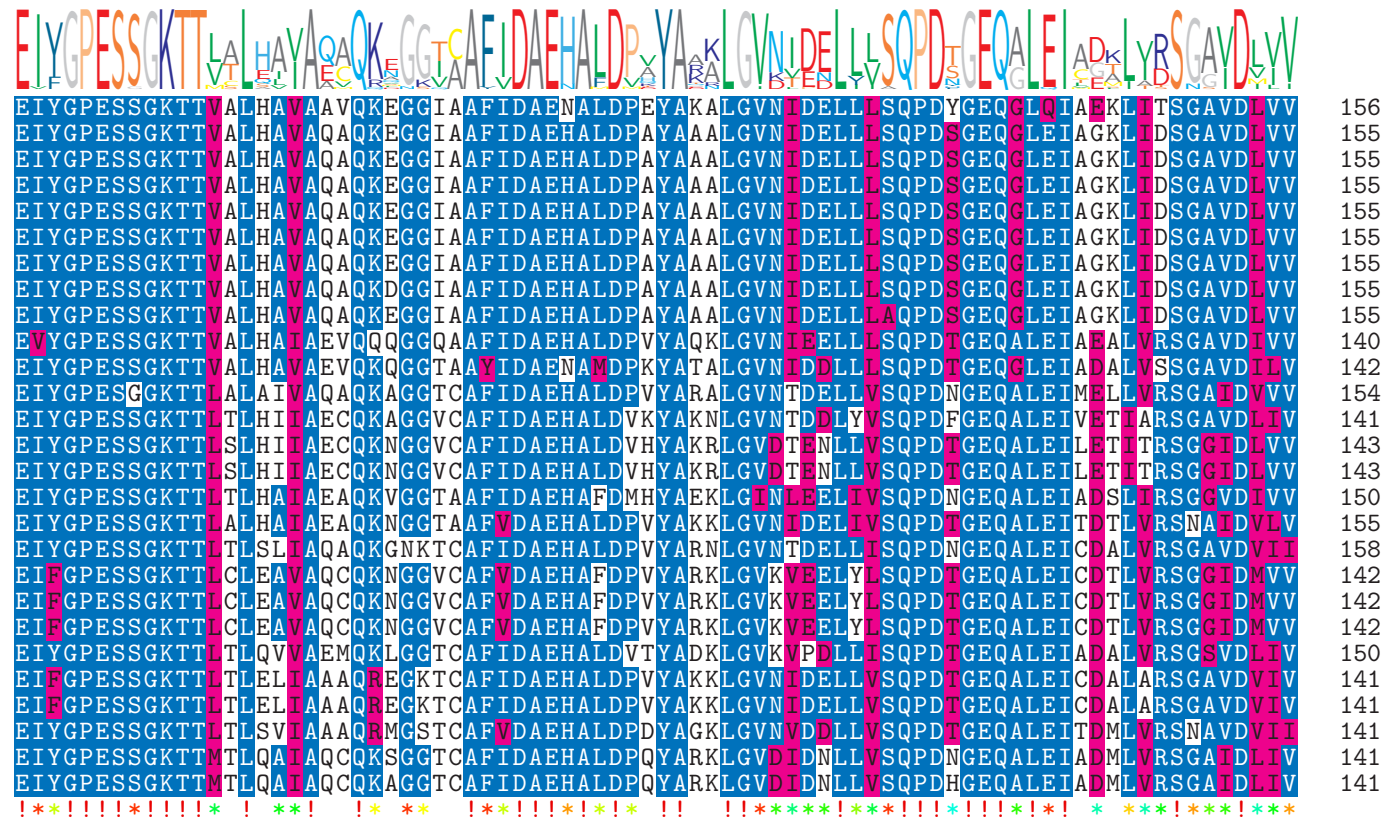


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NTDB id 625 LCA RS02525 WP 011374196.1	MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGRIV		62
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NTDB id 1214 NCTC11637 00359 SQJ03206.1	MAIDEDKQKALSLAIKQIDKVF GKGA LVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGRIT		63
NTDB id 1211 C694 RS00795 WP 000963128.1	MAIDEDKQKALSLAIKQIDKVF GKGA LVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGRIT		63
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NTDB id 1022 ACIAD RS06390 WP 004925639.1	MDDNKSALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGRIV		61
consensus	*** **	***** * !!!!!!!!!	

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NTDB id 269 KZH43 RS08665 WP 001085462.1
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consensus



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consensus	*	!	!	!	!	!	*	*	!	!	*	!	*	!	*	*	!	*	*	!	*	*	!	*	!	*	*	!	*	*	!	*	!	*	*	!	*	!	*	*	!	*	!	*	*																																						

logo

NTDB id 600 KW2 RS01765 WP 011675413.1	RLDVRG	STKIEEGS	.GDNKTQ	IGKITK	IKVVKNKV	VAPPF	KVALV	DIMF	GEGIS	STGEL	INTA	VEEG	IT	KKSG	AWF	AYNDE	314									
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NTDB id 408 SMU RS09530 WP 002262392.1	RLDVRG	NTQIKGTG	.EQKDSN	IGKETK	IKVVKNKV	VAPPF	KEAFV	EIT	Y	GEGIS	R	TGEL	V	KIAS	DL	G	IT	IKKAG	AWYSY	NGE	313					
NTDB id 453 Spy49 1753c ACI62003.1	RLDVRG	TTQIKGTG	.DQKDSN	IGKETK	IKVVKNKV	VAPPF	KVAEV	EIMY	GEGIS	R	TGEL	V	KIAS	DL	G	IT	IKKAG	AWF	SYNGE	313						
NTDB id 115 BSU 16940 NP 389576.2	RLEVRRA	AEQLKQGN		DVMGN	KT	IKVVKNKV	VAPPF	RTA	AEV	DIMY	GEGIS	KEGE	IT	DL	G	TELD	IVQK	SGSW	SYEEEE	294						
NTDB id 625 LCA RS02525 WP 011374196.1	RLEVRRA	ETIKNGT		DMIGN	RARI	IKVVKNKV	VAPPF	KVAEV	DIMY	G	Q	ISRT	TGEL	VDMA	VEK	DI	INK	SGSW	SYSGSE	296						
NTDB id 1313 DR RS12030 WP 010888966.1	RLDVRK	IG....	QPTKVG	ND	AVANT	VKI	IKTVKN	KVA	APF	KEVEL	ALVY	GKGF	DQLS	DLV	GLA	ADMD	IT	IKKAG	SF	SYSGDE	309					
NTDB id 1245 Cj1673c YP 002345041.1	RLDVRK	VVA....	TLK.QN	EEPI	IGNRV	KV	VVKNKV	VAPPF	RQAEF	DVMF	GEG	LS	REGEL	IDY	GVK	L	DIV	DK	SGAW	F	SYKDK	296				
NTDB id 1214 NCTC11637 00359 SQJ03206.1	RIDIRRI	A....	ALK.QN	EQH	IGNRA	KA	VVKNKV	VAPPF	REA	AEF	DIMF	GEGIS	KEGE	IT	DY	GVK	L	DIV	DK	SGAW	LSYQDK	298				
NTDB id 1211 C694 RS00795 WP 000963128.1	RIDIRRI	A....	SLK.QN	EQH	IGNRA	KA	VVKNKV	VAPPF	REA	AEF	DIMF	GEGIS	KEGE	IT	DY	GVK	L	DIV	DK	SGAW	LSYQDK	298				
NTDB id 1334 RAOC RS04870 WP 004918236.1	RIDIRRS	LSDTG	KIKDKS	GEV	IGNRT	KV	VVKNKV	VAPPF	KS	AEF	DIMY	GEG	VSKV	GE	ILD	VAT	D	L	DI	IK	SGSW	F	SYQDT	309		
NTDB id 207403 BSL82 RS05555 WP 072596390.1	RLDIRRT	G....	QIK.DR	DEI	VGNT	TR	VVKNKV	VAPPF	KQVEF	DIMY	GEGIS	KVGE	ILD	LG	VKAG	L	VEK	SGAW	F	SYDSQ	309					
NTDB id 1389 A4U84 RS07560 WP 021112712.1	RLDIRRC	G....	VVK.DG	DEI	IGSET	KV	VVKNKV	VAPPF	REVQF	DIMY	GEGIS	RMNELL	ILAE	ANG	F	IKK	SGAW	F	SYDGT	312						
NTDB id 1130 NGFG RS03960 WP 003688695.1	RLDIRRT	G....	SIK.KG	EEVL	GNETR	VKV	IKNKV	VAPPF	RQAEF	DILY	GEGIS	WEGEL	ID	IG	VKND	I	INK	SGAW	SYNGA	296						
NTDB id 1124 NGFG RS03960 WP 003688695.1	RLDIRRT	G....	SIK.KG	EEVL	GNETR	VKV	IKNKV	VAPPF	RQAEF	DILY	GEGIS	WEGEL	ID	IG	VKND	I	INK	SGAW	SYNGA	296						
NTDB id 1123 OK783 RS03845 WP 003688695.1	RLDIRRT	G....	SIK.KG	EEVL	GNETR	VKV	IKNKV	VAPPF	RQAEF	DILY	GEGIS	WEGEL	ID	IG	VKND	I	INK	SGAW	SYNGA	296						
NTDB id 1427 RS RS02760 WP 011000510.1	RLDIRRI	G....	SIK.KG	DEV	VGN	ETK	VVKNKV	VAPPF	REA	IFD	DILY	GAGV	SREGE	IT	DL	G	VEAK	V	VEK	SGAW	SYNGE	304				
NTDB id 1165 A1552VC RS01565 WP 000344154.1	RLDIRRT	G....	AIK.EG	EEV	VGN	ETRI	KVVKNK	IA	APF	KEANT	QIMY	GQ	GFN	REGEL	ID	LG	VKHK	M	VEK	SGAW	SYNGD	295				
NTDB id 1142 GTF74 RS11550 WP 000344154.1	RLDIRRT	G....	AIK.EG	EEV	VGN	ETRI	KVVKNK	IA	APF	KEANT	QIMY	GQ	GFN	REGEL	ID	LG	VKHK	M	VEK	SGAW	SYNGD	295				
NTDB id 1205 PSJM300 05545 AFN77183.1	RLDIRRT	G....	AVK.EG	DEV	VGS	ETRV	VVKNKV	VAPPF	RQAEF	QILY	GKGI	YRN	GE	IT	DL	G	VQ	QGL	VEK	SGAW	Y	AYKGS	295			
NTDB id 1074 ABD1 RS10195 WP 000344167.1	RLDIRRI	G....	QVK.EG	DEI	IGSET	KV	VVKNK	M	APPF	KEA	IFQ	ILY	GKGT	N	QL	LGEL	V	D	LAV	Q	Q	D	IVQK	AGAW	SYQGN	295
NTDB id 1022 ACIAD RS06390 WP 004925639.1	RLDIRRI	G....	QVK.EG	DEI	IGSET	KV	VVKNK	M	APPF	REA	IFQ	ILY	GKGV	N	QL	LGEL	V	D	LAV	Q	Q	N	IVQK	AGAW	SYQGN	295
consensus	!***!*		*	*	*	*****!***!!*!!*!!*	*		*****!*	*****	*****	***		***	!	!*****!										

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NTDB id 600 KW2 RS01765 WP 011675413.1	KIGQGA	EKAKNYLKEHQDV	FDEIDHKVRAAHG	LDDSEVAETEEETT	ASKTKAKAKKEEK	AVETEEIELELED		387
NTDB id 269 KZH43 RS08665 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTEN	KKDE....PKKEEA	..VNEEVPLDLGDE	LEIEIE	387
NTDB id 228 SPD RS09265 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTEN	KKDE....PKKEEA	..VNEEVPLDLGDE	LEIEIE	387
NTDB id 194 SPR RS08825 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTEN	KKDE....PKKEEA	..VNEEVPLDLGDE	LEIEIE	387
NTDB id 159 SP RS09750 WP 001085462.1	KIGQGS	ENAKKYLAEHPEIF	DEIDKQVRSKFGL	IDGEEVSEQDTEN	KKDE....PKKEEA	..VNEEVPLDLGDE	LEIEIE	387
NTDB id 499 SM12261 RS08315 WP 078228268.1	KIGQGS	ENAKKYLADNPEIF	DEIDHQVRVQFGL	IDGEEIAES....	KKDE....AAQVDS	..VNEEVTLDLGD	LEIEIE	383
NTDB id 527 SMSK321 RS11065 WP 001085454.1	KIGQGS	ENAKKYLADNPEV	FAEIDHQVRVQFGL	IDGEEAAES....	KKDE....VAQVDS	..VNEEVTLDLGD	LEIEIE	383
NTDB id 408 SMU RS09530 WP 002262392.1	KIGQGS	ENAKKFLADNPEIF	DDIDHKVVRVQYGL	IEEDNTEEKQSS	KEK.....ETDEK	..ADKNLVLELDD	TIELED	383
NTDB id 453 Spy49 1753c ACI62003.1	KIGQGS	ENAKRYLADHPQL	FDEIDRKVRVKFGL	LEESEESAMAVASE	E.....	TDDLALDLDN	GIEIED	378
NTDB id 115 BSU 16940 NP 389576.2	RLGQG	RENAKQFLKENK	DIMLMIQEQIREHY	GLDNNGVVQQAEET	QEEL.EFE.E.....			348
NTDB id 625 LCA RS02525 WP 011374196.1	RIGQG	RENAKNYLADHED	VEDEVRLKVRAAYG	ISDVPEEDLPTTE	DE.QI.NILPDDST	EE.....		355
NTDB id 1313 DR RS12030 WP 010888966.1	RIGQG	KEKTIAYIAERP	EMEQEIRDRVMAA	IRAGNAGEAPALAP	APAAPE.AAEA.....			363
NTDB id 1245 Cj1673c YP 002345041.1	KLGGQ	RENSKAFLENPEI	ADEITKAIQNSMG	TEGM....ISGSE	.DDEG.E.E.....			343
NTDB id 1214 NCTC11637 00359 SQJ03206.1	KLGGQ	RENAKALLKEDK	ALADEITLKIKES	IGSNEE...IMPLP	.DEPL.E.EME.....			347
NTDB id 1211 C694 RS00795 WP 000963128.1	KLGGQ	RENAKALLKEDK	ALADEITLKIKES	IGSNEE...IMPLP	.DEPL.E.EME.....			347
NTDB id 1334 RAOC RS04870 WP 004918236.1	KLGGQ	RDITVKELIKDNP	ELAELEAKIREKL	QAK.....				343
NTDB id 207403 BSL82 RS05555 WP 072596390.1	RIGQG	RENAKTFLKENR	ELLDRLEQAIRANA	AGVSE....ALMGD	PESDG.DEEP.....			359
NTDB id 1389 A4U84 RS07560 WP 021112712.1	KIGQG	KNNAVKWLKENPEI	ADKLEQEI RNTLAS	NP.....SVLKATAS	DS.NDES DV..EEF	SEEEL.....		372
NTDB id 1130 NGFG RS03960 WP 003688695.1	KIGQG	KDNVRVWLKENPEI	SDEIDAKIRALNG	VEMH....ITEGTQ	DET.....D..GER	PEE.....		348
NTDB id 1124 NGFG RS03960 WP 003688695.1	KIGQG	KDNVRVWLKENPEI	SDEIDAKIRALNG	VEMH....ITEGTQ	DET.....D..GER	PEE.....		348
NTDB id 1123 OK783 RS03845 WP 003688695.1	KIGQG	KDNVRVWLKENPEI	SDEIDAKIRALNG	VEMH....ITEGTQ	DET.....D..GER	PEE.....		348
NTDB id 1427 RS RS02760 WP 011000510.1	RIGQGR	DNCREFLRENAEL	AREIENKVREHLG	VTPM...GAVTLA	.EEV.EED.....			352
NTDB id 1165 A1552VC RS01565 WP 000344154.1	KIGQG	KANACKY LKENPEI	AKTLDKKLREMLLN	PNEN...MQLIAET	SSA.ADDVEF..GAV	PEEF.....		354
NTDB id 1142 GTF74 RS11550 WP 000344154.1	KIGQG	KANACKY LKENPEI	AKTLDKKLREMLLN	PNEN...MQLIAET	SSA.ADDVEF..GAV	PEEF.....		354
NTDB id 1205 PSJM300 05545 AFN77183.1	KIGQG	KANAACYLEENPEI	IGQIEEQIRAKLL	VTSA...NTKATP	VAED.LADAD...I			347
NTDB id 1074 ABD1 RS10195 WP 000344167.1	KIGQG	KNNVIRYFEENN	QIAEEIERNIREQL	LTGT...NGAVQ	.I.ED.EEEP	D...LLLES		349
NTDB id 1022 ACIAD RS06390 WP 004925639.1	KIGQG	KNNVIRYLEENPQ	ISTEIEAVIREQL	LTAS...DQTAA	.HDET.EEEP	D...LLES		349
consensus	**!!!	*****	**	*****	*****	**	**	

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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 408 SMU RS09530 WP 002262392.1	.	383
NTDB id 453 Spy49 1753c ACI62003.1	.	378
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 207403 BSL82 RS05555 WP 072596390.1	.	359
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