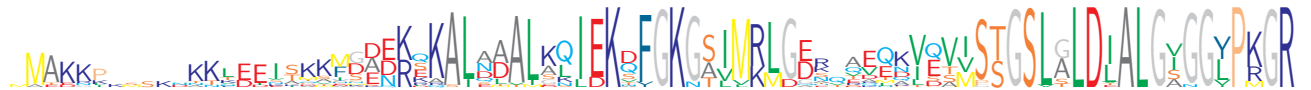


logo



NTDB id 600 KW2 RS01765 WP 011675413.1	MATKKK.....TNFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGEA	.ANQKVS	VSSGSLALDI	ALGAGGYPKGR	74	
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 159 SP RS09750 WP 001085462.1	.MAKKP.....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKKP.....KKLDEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKKP.....KKLDEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGER	.AEQKVQVMSSGSLALDI	ALGSGGYPKGR	73		
NTDB id 453 Spy49 1753c ACI62003.1	.MAKKL.....KKNEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQVMSSGSLALDI	ALGAGGYPKGR	73		
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKRI.....KKTEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQVMSSGSLALDI	ALGAGGYPKGR	73		
NTDB id 115 BSU 16940 NP 389576.2	.....MS	DRQAALDMALKQIEKQ	FGKGSIMKLGK	.TDTRISTVPSGSLALDI	TALGIGGYPRGR	58	
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKD	ERQAALDAALKKIEKN	FGKGSIMRMGEK	.VDTQVSTVSSGSLALDE	ALGVGGYPRGR	60	
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTD	AKERSKATETAM	IEKAFGKGSIMKLGAE	.SKLDVQVVSTGSLSLDL	ALGVGGIPRGR	72	
NTDB id 384119 DIU38 RS21090 WP 090534412.1	.MA.....NIDKNSA	DKLKAQLTLDKLEKS	YGKGTIMKLGESV	.QTEVISTGSLGLDI	ALGVNGLPKGR	65		
NTDB id 1334 RAOC RS04870 WP 004918236.1	.MA.....KT.ETTSPND	DKKKALAAVLEKLDKT	YGKGTVMKLG	DGTVDHNEVIPS	GSLGLDLALGVGGYPKGR	68		
NTDB id 1245 Cj1673c YP 002345041.1	.....MDDN	KRKSALDAALKS	LDKTFGKGTILRLGDK	.EVEQIDSIGTGSVGLDL	ALGIGGVPKGR	59	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDE	DKQKATISLAIKQID	KVFGKGA	LVRVLDK.QVEKIDAIST	GSLGLDLALGIGGVPKGR	61	
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDE	DKQKATISLAIKQID	KVFGKGA	LVRVLDK.QVEKIDSIST	GSLGLDLALGIGGVPKGR	61	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSSKNNTV.VKQVEPEQ	KKQALEAALAQIEKQ	FGKGSIMKLGQT	.EQLDIESVSTGSLGLDL	ALGIGGLPMGR	76		
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAQIEKS	FGKGAIMKMDGSQ	QEEENLEVISTGSLGLDL	ALGVGGLPRGR	60	
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAQIEKS	FGKGAIMKMDGSQ	QEEENLEVISTGSLGLDL	ALGVGGLPRGR	60	
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSD	DKSKALAAALAQIEKS	FGKGAIMKMDGSQ	QEEENLEVISTGSLGLDL	ALGVGGLPRGR	60	
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....K.KAASMSA	EKQKALAAALAQIEKQ	FGKGSIMKMGDA	.EVEPVQVVSTGSLGLD	VALGVGGLPRGR	68		
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVETISTGSLSLDI	ALGAGGLPMGR	59	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVETISTGSLSLDI	ALGAGGLPMGR	59	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEAVSTGSLTLDI	ALGIGGLPKGR	59	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDEN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEAVSTGSLTLDI	ALGIGGLPKGR	59	
NTDB id 1205 PSJM300 05545 AFN77183.1	.....MDEN	KKRALAAALGQIEKQ	FGKGAVMRMGDH	.DRQAIPSISTGSLGLDI	ALGIGGLPKGR	59	
consensus		** **	**	**!	*****	*	*****!!!!!!!	****

logo

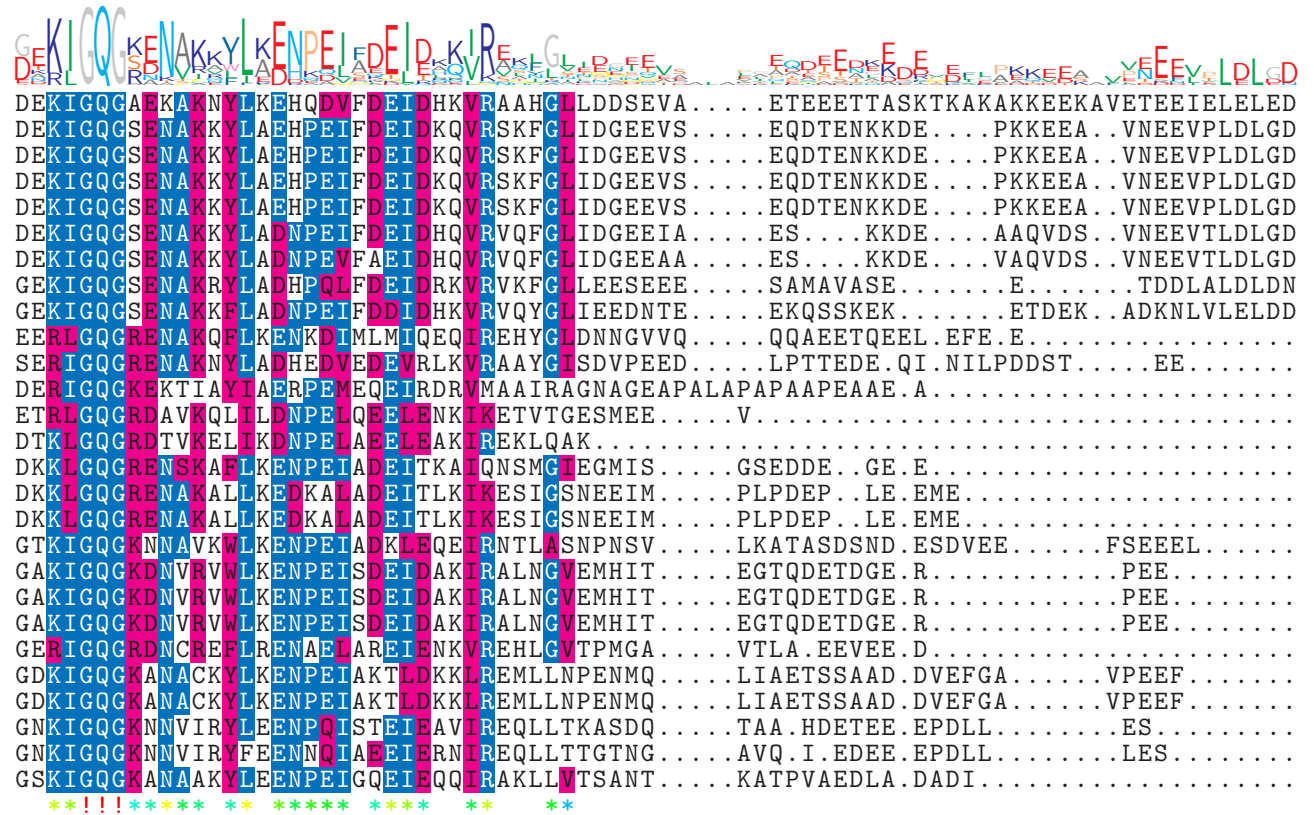


NTDB id 600	KW2	RS01765	WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQIGKIKTKIKVVKNKVAPPFKVALVDIMFGEGISSTGELINIAVEEGI	I	IKKSGAWFAYN	312				
NTDB id 269	KZH43	RS08665	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDL	DI	IKKAGAWYSYK	311			
NTDB id 228	SPD	RS09265	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDL	DI	IKKAGAWYSYK	311			
NTDB id 194	SPR	RS08825	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDL	DI	IKKAGAWYSYK	311			
NTDB id 159	SP	RS09750	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDL	DI	IKKAGAWYSYK	311			
NTDB id 499	SM12261	RS08315	WP 078228268.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKAEAFVEIMYGGEGISKTGELLKIASDL	DI	IKKAGAWYSYK	311			
NTDB id 527	SMSK321	RS11065	WP 001085454.1	SVRLDVRGSTQIKGTG.DQKDTN	VGKETKIKVVKNKVAPPFKAEAFVEIMYGGEGISKTGELLKIASDL	DI	IKKAGAWYSYK	311			
NTDB id 453	Spy49	1753c	ACI62003.1	SVRLDVRGTTQIKGTG.DQKDS	IGKETKIKVVKNKVAPPFKVAEVEIMYGGEGISRTGELVKIASDL	DI	IKKAGAWFSYN	311			
NTDB id 408	SMU	RS09530	WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSN	IGKETKIKVVKNKVAPPFKAEAFVEIIMYGGEGISRTGELVKIASDL	GI	IKKAGAWYSYN	311			
NTDB id 115	BSU	16940	NP 389576.2	SVRLEVRRAEQLKQGN.....D	MGNKTKIKVVKNKVAPPFR	TAEVDIMYGGEGISKEGEI	IDL	GTGELDIVQKSGSWYSYE	292		
NTDB id 625	LCA	RS02525	WP 011374196.1	TVRLEVRRAETIKNGT.....D	MIGNRARIKVVKNKVAPPFKVAEVD	IMYGGEGISRTGELVDM	AVEKDI	INKSGSWYSYG	294		
NTDB id 1313	DR	RS12030	WP 010888966.1	SVRLDVRKIGQP....TKVGNDA	VANTVVKIKTVKNKVAAPFK	EVELALVYGGKGFQDLS	DLVGLA	ADM	DI	IKKAGSFYSYG	307
NTDB id 384119	DIU38	RS21090	WP 090534412.1	SVRLDVRRIISQI.....KDT	DEVSGNRVVKIKVKNKVAPPFR	VAEFDIMFGEGISKAGEI	IDL	GVVEYNI	IKKAGSWFSYQ	299	
NTDB id 1334	RAOC	RS04870	WP 004918236.1	SVRIDIRRSLSDTGKIKDKSGEV	IGNRTKVVKNKVAPPFKSAEFD	IMYGGEGVSKVGEILD	VATDLD	DI	IKKAGSWFSYQ	307	
NTDB id 1245	Cj1673c	YP 002345041.1	SVRLDVRKVATL.....KQNEEP	IGNRVKVVKNKVAPPFRQAEFD	VDFGEGLSREGELIDYGVKLD	DIVDKSGAWFSYK	294				
NTDB id 1214	NCTC11637	00359	SQJ03206.1	SVRIDIRRIIAL.....KQNEQH	IGNRAKAKVVKNKVAPPFR	EAEFDIMFGEGISKEGEI	IDYGVKLD	DIVDKSGAWLSYQ	296		
NTDB id 1211	C694	RS00795	WP 000963128.1	SVRIDIRRIASL.....KQNEQH	IGNRAKAKVVKNKVAPPFR	EAEFDIMFGEGISKEGEI	IDYGVKLD	DIVDKSGAWLSYQ	296		
NTDB id 1389	A4U84	RS07560	WP 021112712.1	SVRLDIRRCGVV.....KDGDEI	IGSETKVVKNKVAPPFR	EVQFDIMYGGEGISRMNELL	ILAEANGFI	IKKSGAWFSYD	310		
NTDB id 1130	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGSI.....KKGEEV	LGNETRKKVKNKVAPPFRQAEFD	DILYGGEGISWEGELID	IGVKN	DI	INKSGAWYSYN	294	
NTDB id 1124	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGSI.....KKGEEV	LGNETRKKVKNKVAPPFRQAEFD	DILYGGEGISWEGELID	IGVKN	DI	INKSGAWYSYN	294	
NTDB id 1123	OK783	RS03845	WP 003688695.1	SVRLDIRRTGSI.....KKGEEV	LGNETRKKVKNKVAPPFRQAEFD	DILYGGEGISWEGELID	IGVKN	DI	INKSGAWYSYN	294	
NTDB id 1427	RS	RS02760	WP 011000510.1	SVRLDIRRIGSI.....KKGDEV	VGNETKVVKNKVAPPFR	EAFIDILYGGAGVSREGEI	IDL	GV	EAKVVEKSGAWYSYN	302	
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	SVRLDIRRTGAI.....KEGEEV	VGNETRIKVVKNKIAAPFK	EANTQIMYGGGFNREGELID	LG	VKHKMVEKSGAWYSYN	293		
NTDB id 1142	GTF74	RS11550	WP 000344154.1	SVRLDIRRTGAI.....KEGEEV	VGNETRIKVVKNKIAAPFK	EANTQIMYGGGFNREGELID	LG	VKHKMVEKSGAWYSYN	293		
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	SVRLDIRRIGQV.....KEGDEI	IGSETKVVKNKMAPPFR	EAFIQILYGGKGNL	LGELVDLAVQQ	NIVQKAGAWYSYQ	293		
NTDB id 1074	ABD1	RS10195	WP 000344167.1	SVRLDIRRIGQV.....KEGDEI	IGSETKVVKNKMAPPFR	EAFIQILYGGKGNL	LGELVDLAVQQ	NIVQKAGAWYSYQ	293		
NTDB id 1205	PSJM300	05545	AFN77183.1	SVRLDIRRTGAV.....KEGDEV	VGSETRKVVKNKVAPPFRQAEFQ	ILYGGKIYRNGEIID	LG	VQQGLVEKSGAWAYK	293		
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 384119 DIU38 RS21090 WP 090534412.1
 NTDB id 1334 RAOC RS04870 WP 004918236.1
 NTDB id 1245 Cj1673c YP 002345041.1
 NTDB id 1214 NCTC11637 00359 SQJ03206.1
 NTDB id 1211 C694 RS00795 WP 000963128.1
 NTDB id 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



!!!** ** ***** ***** ** **

387
380
380
380
380
376
376
372
377
348
355
363
340
343
343
347
347
372
348
348
348
352
354
354
349
349
347

logo

	ELEIEEE	
NTDB id 600 KW2 RS01765 WP 011675413.1	.....	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	ELEIEIEE	388
NTDB id 228 SPD RS09265 WP 001085462.1	ELEIEIEE	388
NTDB id 194 SPR RS08825 WP 001085462.1	ELEIEIEE	388
NTDB id 159 SP RS09750 WP 001085462.1	ELEIEIEE	388
NTDB id 499 SM12261 RS08315 WP 078228268.1	ELEIEIEE	384
NTDB id 527 SMSK321 RS11065 WP 001085454.1	ELEIEIEE	384
NTDB id 453 Spy49 1753c ACI62003.1	GIEIED..	378
NTDB id 408 SMU RS09530 WP 002262392.1	TIELED..	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 384119 DIU38 RS21090 WP 090534412.1	.....	340
NTDB id 1334 RAOC RS04870 WP 004918236.1	.....	343
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 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 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