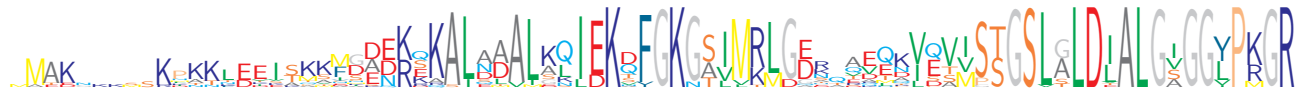


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NTDB id 600 KW2 RS01765 WP 011675413.1	MATK.....KKTNFDDITKKYGAERDKALADALALIEKDFGKGSIMRLGER.A.NQKVS	VSSGSLALDI	ALGAGGYPKGR	74					
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDI	ALGSGGYPKGR		73					
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NTDB id 194 SPR RS08825 WP 001085462.1	.MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDI	ALGSGGYPKGR		73					
NTDB id 159 SP RS09750 WP 001085462.1	.MAK.....KPKKLEEISKKFGAEREKALNDALKLIEKDFGKGSIMRLGER.AEQKVQVMSSGSLALDI	ALGSGGYPKGR		73					
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NTDB id 408 SMU RS09530 WP 002262392.1	.MAK.....RIKKTEEITKKFGDERKKALDDALKNIEKDFGKGAVMRLGER.AEQKVQVMSSGSLALDI	ALGAGGYPKGR		73					
NTDB id 115 BSU 16940 NP 389576.2	.....MSDRQAALDMALKQIEKQFGKGSIMKLGEEK.TDTRISTVPSGSLALDI	TALGIGGYPRGR		58				
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGR			60				
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTDAKERSKATETAMSIKAEKAFGKGSIMKLGAE.SKLDVQVVSTGSLSLDL	ALGVGGIPRGR		72				
NTDB id 327202 EG359 RS11000 WP 076354629.1	.....MSNIDDKKKALALVLDKLDKTYGKGTVMTLGDDA	VDTTIEVIPSGSLGLDI	TALGIGGYPRGR	62				
NTDB id 1334 RAOC RS04870 WP 004918236.1	.....MAK..TETTSNDDKKKALAAVLEKLDKTYGKGTVMKLG	DGTVDHNIIEVIPSGSLGLDL	ALGVGGYPRGR	68				
NTDB id 1245 Cj1673c YP 002345041.1MDNKRKSLDAALKS	LDKTFGKGTILRLGDK	.EVEQIDSIGTGSVGLDL	ALGIGGVPRGR	59				
NTDB id 1214 NCTC11637 00359 SQJ03206.1MAIDEDKQKATISLAIKQIDKVF	FGKALVRLGDK	.QVEKIDAI	ISTGSLGLDL	ALGIGGVPRGR	61			
NTDB id 1211 C694 RS00795 WP 000963128.1MAIDEDKQKATISLAIKQIDKVF	FGKALVRLGDK	.QVEKIDS	ISTGSLGLDL	ALGIGGVPRGR	61			
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKSSKNNT..VVKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDI	ESVSTGSLGLDL	ALGIGGLPMGR		76				
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NTDB id 1124 NGFG RS03960 WP 003688695.1MSDDKSKALAAALAQIEKSF	GKGAIMKMDGSQ	QEEENLEVISTGSLGLDL	ALGVGGLPRGR	60				
NTDB id 1123 OK783 RS03845 WP 003688695.1MSDDKSKALAAALAQIEKSF	GKGAIMKMDGSQ	QEEENLEVISTGSLGLDL	ALGVGGLPRGR	60				
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....KKAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLD	VALGVGGLPRGR		68					
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDI	ALGAGGLPMGR		59				
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDI	ALGAGGLPMGR		59				
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDI	TALGIGGLPKGR		59				
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDI	TALGIGGLPKGR		59				
NTDB id 1205 PSJM300 05545 AFN77183.1MDENKRRALAAALGQIEKQFGKGAVMRMGDH.DRQAIPSISTGSLGLDI	TALGIGGLPKGR		59					
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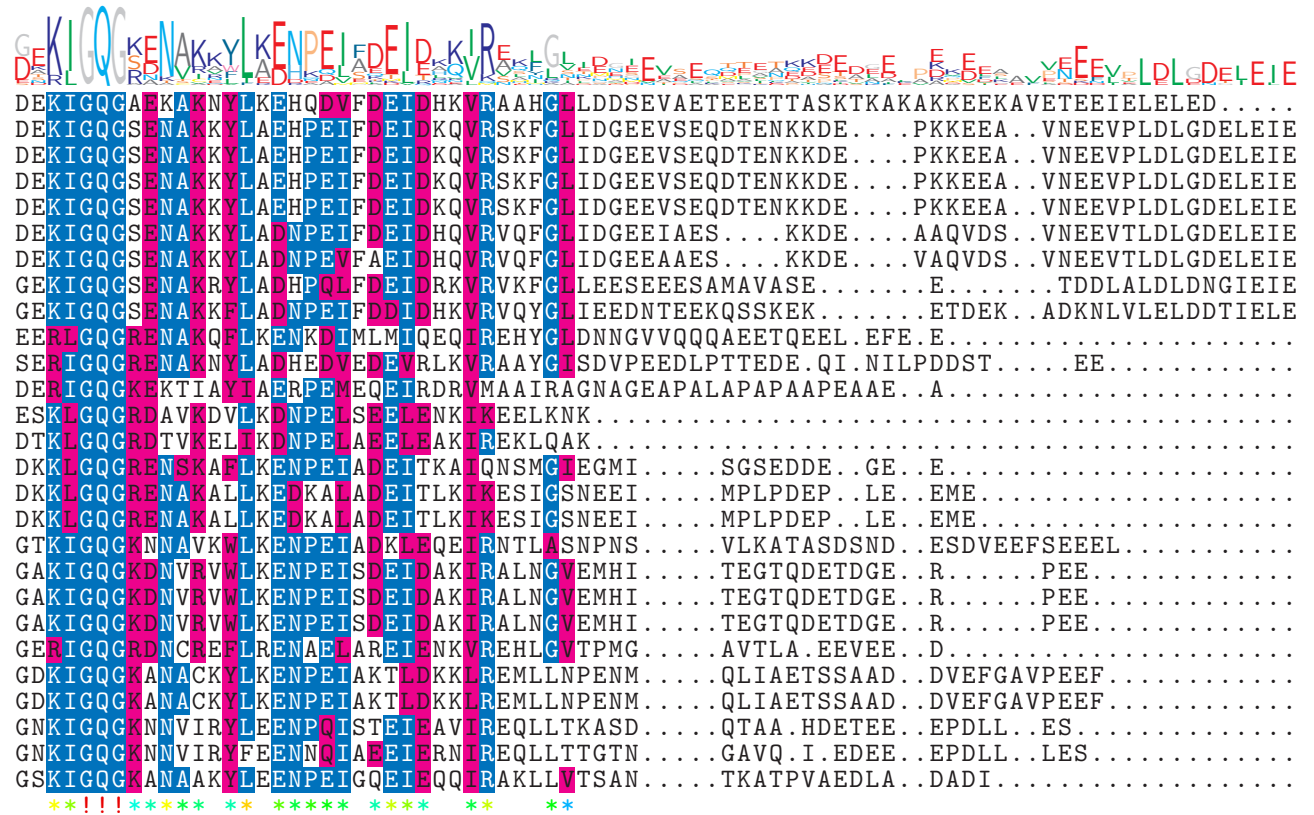


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NTDB id 269	KZH43	RS08665	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 228	SPD	RS09265	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 194	SPR	RS08825	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 159	SP	RS09750	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 499	SM12261	RS08315	WP 078228268.1	SVRLDVRGNTQIKGTG.DQKETNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 527	SMSK321	RS11065	WP 001085454.1	SVRLDVRGNTQIKGTG.DQKETNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISKTGELLKIASDLDIKKAGAWYSYK	311
NTDB id 453	Spy49	1753c	ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSNIGKETKIKVVKNKVAPPFKVAEVEIMYGGEGISRTGELVKIASDLDIQKAGAWFSYN	311
NTDB id 408	SMU	RS09530	WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSNIGKETKIKVVKNKVAPPFKAEAVVEIMYGGEGISRTGELVKIASDLDIQKAGAWYSYN	311
NTDB id 115	BSU	16940	NP 389576.2	SVRLEVRRAEQLKQGN.....DVMGNKTKIKVVKNKVAPPFRTAEVDIMYGGEGISKEGEITDLGTELDIVQKSGSWYSYE	292
NTDB id 625	LCA	RS02525	WP 011374196.1	TVRLEVRRAETIKNGT.....DMIGNRARIKVVKNKVAPPFKVAEVDIMYGGEGISRTGELVDMAVEKDIINKSGSWYSYG	294
NTDB id 1313	DR	RS12030	WP 010888966.1	SVRLDVRKIGQPT....KVGNDAVANTVVKIKTVKNKVAAPFKAEVELALVYGGKGFQDLSLDVGLAADMDIINKAGSFYSYG	307
NTDB id 327202	EG359	RS11000	WP 076354629.1	SVRIDIRKASAPI....KQGDDEAIGSRVKKIKVKNKVAPPFKQAEFDIMYGGEGVSKVGEILDAAVDMGIVKKSGSWFSYE	297
NTDB id 1334	RAOC	RS04870	WP 004918236.1	SVRIDIRRSLSDTGKIKDKSGEVIGNRTRKVVKNKVAPPFKSAEFDIMYGGEGVSKVGEILDVATDLDIQKSGSWFSYQ	307
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NTDB id 1214	NCTC11637	00359	SQJ03206.1	SVRIDIRRIIAL.....KQNEQHIGNRAKAKVVKNKVAPPFRQAEFDIMFGEGISKEGEITDYGVKLDIVDKSGAWLSYQ	296
NTDB id 1211	C694	RS00795	WP 000963128.1	SVRIDIRRIASL.....KQNEQHIGNRAKAKVVKNKVAPPFRQAEFDIMFGEGISKEGEITDYGVKLDIVDKSGAWLSYQ	296
NTDB id 1389	A4U84	RS07560	WP 021112712.1	SVRLDIRRCGVV.....KDGDEIIGSETKVVKNKVAPPFRQAEFDIMYGGEGISRMNELLILAEANGFIKKSGAWFSYD	310
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NTDB id 1124	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGSI.....KKGEEVLGNETRKKVKNKVAPPFRQAEFDILYGGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1123	OK783	RS03845	WP 003688695.1	SVRLDIRRTGSI.....KKGEEVLGNETRKKVKNKVAPPFRQAEFDILYGGEGISWEGELIDIGVKNDIINKSGAWYSYN	294
NTDB id 1427	RS	RS02760	WP 011000510.1	SVRLDIRRIGSI.....KKGDEVVGNETKVVKNKVAPPFRQAEFDILYGGAGVSREGEITDLGVEAKVVEKSGAWYSYN	302
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	SVRLDIRRTGAI.....KEGEEVLGNETRKKVKNKIAAPFKAEANTQIMYGGGFNREGELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1142	GTF74	RS11550	WP 000344154.1	SVRLDIRRTGAI.....KEGEEVLGNETRKKVKNKIAAPFKAEANTQIMYGGGFNREGELIDLGVKHKMVEKSGAWYSYN	293
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	SVRLDIRRIGQV.....KEGDEIIGSETKVVKNKMAPPFREAIQILYGGKGNLQGLVLDLAVQQNIVQKAGAWYSYQ	293
NTDB id 1074	ABD1	RS10195	WP 000344167.1	SVRLDIRRIGQV.....KEGDEIIGSETKVVKNKMAPPFREAIQILYGGKGNLQGLVLDLAVQQNIVQKAGAWYSYQ	293
NTDB id 1205	PSJM300	05545	AFN77183.1	SVRLDIRRTGAV.....KEGDEVVGSSETRKVVKNKVAPPFRQAEFQILYGGKIYRNGEITDLGVQQGLVEKSGAWAYK	293
consensus				*!!**!* * * ** *****!!*!!*!!*! * * *****!*!*** ***** ** ***** ! !*****!	

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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 327202 EG359 RS11000 WP 076354629.1
 NTDB id 1334 RAOC RS04870 WP 004918236.1
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 NTDB id 1214 NCTC11637 00359 SQJ03206.1
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 NTDB id 1124 NGFG RS03960 WP 003688695.1
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 NTDB id 1427 RS RS02760 WP 011000510.1
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 NTDB id 1074 ABD1 RS10195 WP 000344167.1
 NTDB id 1205 PSJM300 05545 AFN77183.1

consensus



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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
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NTDB id 115 BSU 16940 NP 389576.2	...	348
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consensus

 non conserved
 similar
 ≥ 50% conserved