

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	MATKKK....TNFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGERAE	.QKVS	VSSGSLALDI	ALGAGGYPKGR	74	
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKKP....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR		73	
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKKP....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR		73	
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKKP....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR		73	
NTDB id 159 SP RS09750 WP 001085462.1	.MAKKP....KKLEEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR		73	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKKP....KKLDEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR		73	
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKKP....KKLDEISKKFGA	EREKALNDALKLEKD	FGKGSIMRLGERAE	.QKVQVMSSGSLALDI	ALGSGGYPKGR		73	
NTDB id 453 Spy49 1753c ACI62003.1	.MAKKL....KKNEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGERAE	.QKVQVMSSGSLALDI	ALGAGGYPKGR		73	
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKRI....KKTEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGERAE	.QKVQVMSSGSLALDI	ALGAGGYPKGR		73	
NTDB id 115 BSU 16940 NP 389576.2	.....MS	DRQAALDMALKQIEKQ	FGKGSIMKLGKTD	.TRISTVPSGSLALDI	TALGIGGYPRGR		58	
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKD	ERQAALDAALKKIEKN	FGKGSIMRMGEKVD	.TQVSTVSSGSLALDE	ALGVGGYPRGR		60	
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTD	ERSKATETAMSQIEKA	FGKGSIMKLGAESE	.LDVQVVSTGSLSLDL	ALGVGGIPRGR		72	
NTDB id 1245 Cj1673c YP 002345041.1	.....MDDN	KRKSALDAALKS	LDKTFGKGTILRLG	KEV.EQIDS	IGTGSVGLDL	ALGIGGVPKGR	59	
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDE	DKQKATISLAIKQID	KVFGKGAIVRLGDKQV	.EKIDS	ISTGSLGLDL	ALGIGGVPKGR	61	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDE	DKQKATISLAIKQID	KVFGKGAIVRLGDKQV	.EKIDA	ISTGSLGLDL	ALGIGGVPKGR	61	
NTDB id 1334 RAOC RS04870 WP 004918236.1	.....MAK..TETTSPND	DKKALAAVLEKLDKT	YGKGTVMKLG	GTVDHNI	IEVIPS	SGSLGLDL	ALGVGGYPKGR	68
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAIQIEKS	FGKGAIMKMDGSQ	QENLEVI	STGSLGLDL	ALGVGGLPRGR	60	
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSD	DKSKALAAALAIQIEKS	FGKGAIMKMDGSQ	QENLEVI	STGSLGLDL	ALGVGGLPRGR	60	
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSD	DKSKALAAALAIQIEKS	FGKGAIMKMDGSQ	QENLEVI	STGSLGLDL	ALGVGGLPRGR	60	
NTDB id 357641 E5678 RS17965 WP 136179802.1	.....MDAA..VKPNPLNA	EKAKALQAALAQIEKQ	FGKGTIMRLGEGE	VI	DIQVVSTGSLGLDI	ALGVGGLPRGR	69	
NTDB id 1427 RS RS02760 WP 011000510.1	.....MEDG..KKAASMSA	EKQKALAAALAIQIEKQ	FGKGSIMKMGDAEV	.EPVQVVSTGSLGLD	VALGVGGLPRGR		68	
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKS	KNNT.VVKQVEPEQ	KKQALEAALAIQIEKQ	FGKGSIMKLGQTEQ	.LDIESVSTGSLGLDL	ALGIGGLPMGR	76	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDNRA	.MDVET	ISTGSLSLDI	ALGAGGLPMGR	59	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDEN	KQKALAAALGQIEKQ	FGKGSIMRLGDNRA	.MDVET	ISTGSLSLDI	ALGAGGLPMGR	59	
NTDB id 1205 PSJM300 05545 AFN77183.1	.....MDEN	KKRALAAALGQIEKQ	FGKGAVMRMGDHDR	.QAI	PSISTGSLGLDI	ALGIGGLPKGR	59	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	NTV.QAVEAV	STGSLTLDI	ALGIGGLPKGR	59	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDEN	KSKALQAALSQIEKQ	FGKNTVMRLGDN	NTV.QAVEAV	STGSLTLDI	ALGIGGLPKGR	59	
consensus		** **	**	***!	*!*****	* **	***!***!***!***!***!***!	



logo



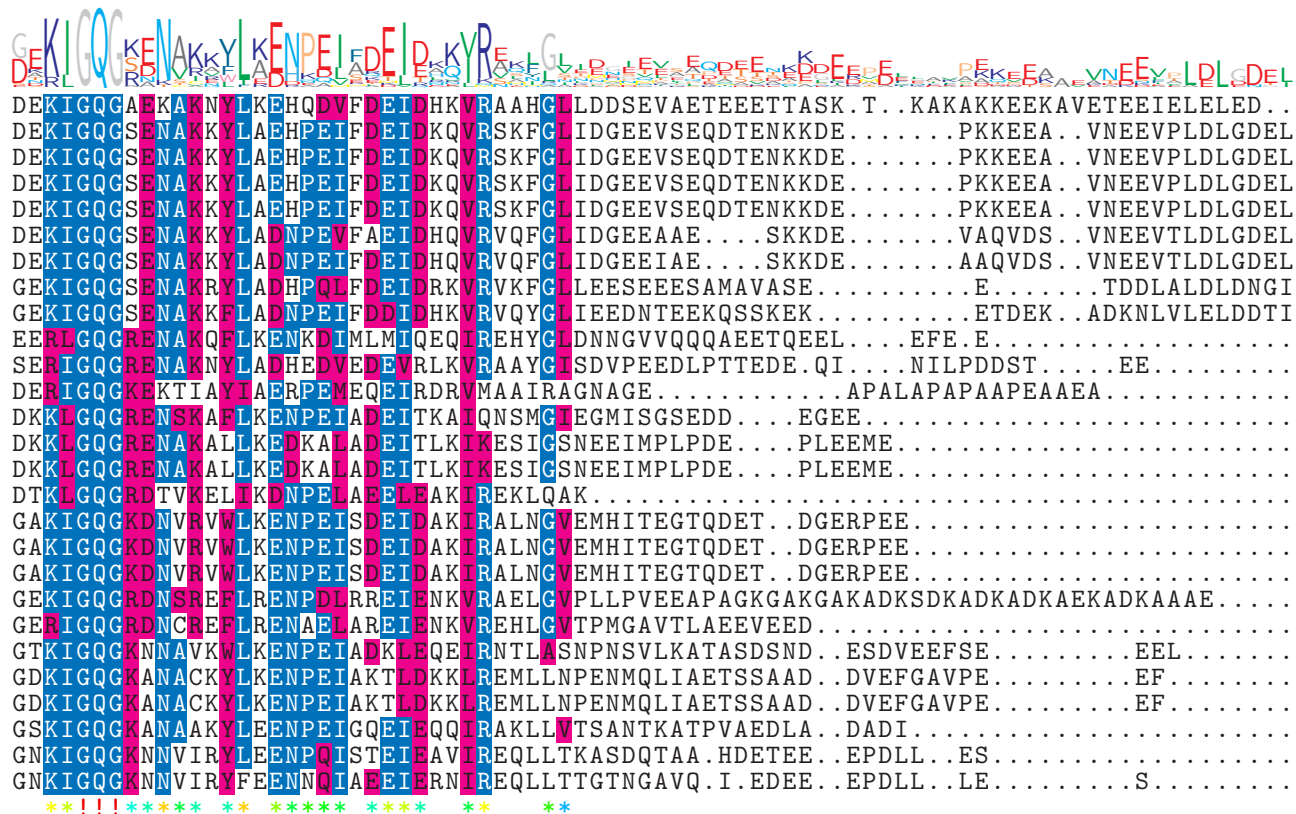
NTDB id 600 KW2 RS01765 WP 011675413.1	VV	IDSVAALV	PKAEI	DGEI	IGDSSV	GLQAR	MMSQ	AMRKL	AGH	INKTKT	TAIF	INQL	REKVG	VGM	.	FG	SPET	TPGGR	ALKFY	A	233			
NTDB id 269 KZH43 RS08665 WP 001085462.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	GA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 228 SPD RS09265 WP 001085462.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	GA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 194 SPR RS08825 WP 001085462.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	GA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 159 SP RS09750 WP 001085462.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	GA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 527 SMSK321 RS11065 WP 001085454.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	GA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 499 SM12261 RS08315 WP 078228268.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	GA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 453 Spy49 1753c ACI62003.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	SA	SINKTKT	TAIF	INQL	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	A	232			
NTDB id 408 SMU RS09530 WP 002262392.1	VV	VDSVAALV	PRAEI	DGDI	IGDSHV	GLQAR	MMSQ	AMRKL	SA	SINKTKT	TAIF	INQL	REKVG	IM	.	FG	NPET	TPGGR	ALKFY	S	232			
NTDB id 115 BSU 16940 NP 389576.2	VV	VDSVAALV	PKAEI	EGDMG	DSHV	GLQAR	LMSQ	ALRKL	SGA	INKSKT	IAIF	INQI	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	S	217			
NTDB id 625 LCA RS02525 WP 011374196.1	LV	VDSVAALV	PRAEI	EGEMG	D	HVGL	QARL	MSQAL	RKLS	GTINKTKT	IAIF	INQI	REKVG	VGM	.	FG	NPET	TPGGR	ALKFY	S	219			
NTDB id 1313 DR RS12030 WP 010888966.1	VV	VDSVAALV	PRAEI	EGDMG	DSL	PGLQAR	LMSQ	ALRKL	TA	ILSKT	GTAA	IFIN	QVRE	KIG	VGM	.	YG	NPET	TTGG	RALKFY	A	231		
NTDB id 1245 Cj1673c YP 002345041.1	IV	VDSVAALV	PKAEI	EGDMG	D	HVGL	QARL	MSQAL	RKLT	GI	VHKM	NTTV	IFIN	QIRM	KIG	AM	GY	GT	PETT	TTGG	NALKFY	A	219	
NTDB id 1211 C694 RS00795 WP 000963128.1	VV	VDSVAALV	PKAEI	DGDMG	D	HVGL	QARL	MSHAL	RKIT	GV	LHKM	NTTL	IFIN	QIRM	KIG	MM	YG	SP	PETT	TTGG	NALKFY	A	221	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	VV	VDSVAALV	PKAEI	DGDMG	D	HVGL	QARL	MSHAL	RKIT	GV	LHKM	NTTL	IFIN	QIRM	KIG	MM	YG	SP	PETT	TTGG	NALKFY	A	221	
NTDB id 1334 RAOC RS04870 WP 004918236.1	VV	VDSVAALV	PKAEI	DGDMG	DK	MGLH	ARL	MSQAL	RKLT	SS	ISKT	KCTV	IFIN	QLR	DKIG	VGM	.	FG	SPET	TTGG	NALKFY	A	227	
NTDB id 1130 NGFG RS03960 WP 003688695.1	VV	VDSVAALV	PKAEI	EGDMG	DSHV	GLQAR	LMSQ	ALRKL	TGH	IKKTNT	LV	FINQ	IRMK	IG	VGM	.	FG	SPET	TTGG	NALKFY	S	219		
NTDB id 1124 NGFG RS03960 WP 003688695.1	VV	VDSVAALV	PKAEI	EGDMG	DSHV	GLQAR	LMSQ	ALRKL	TGH	IKKTNT	LV	FINQ	IRMK	IG	VGM	.	FG	SPET	TTGG	NALKFY	S	219		
NTDB id 1123 OK783 RS03845 WP 003688695.1	VV	VDSVAALV	PKAEI	EGDMG	DSHV	GLQAR	LMSQ	ALRKL	TGH	IKKTNT	LV	FINQ	IRMK	IG	VGM	.	FG	SPET	TTGG	NALKFY	S	219		
NTDB id 357641 E5678 RS17965 WP 136179802.1	IV	IDSVAALV	PKAEI	LEGEM	GDSL	PGLQAR	LMSQ	ALRKL	TAT	IKSN	CMV	IFIN	QIRM	KIG	VGM	.	FG	SPET	TTGG	NALKFY	A	228		
NTDB id 1427 RS RS02760 WP 011000510.1	IV	IDSVAALV	PKAEI	EGEMG	D	ALP	GLQAR	LMSQ	ALRKL	TG	TIKR	TNCL	V	IFIN	QIRM	KIG	VGM	.	FG	SPET	TTGG	NALKFY	A	227
NTDB id 1389 A4U84 RS07560 WP 021112712.1	II	VDSVAALV	PKAEI	EGDMG	DSH	MGLQAR	LMSQ	ALRKL	TAN	IKNT	NCLV	V	FINQ	IRMK	IG	VGM	.	FG	NPET	TTGG	NALKFY	A	235	
NTDB id 1165 A1552VC RS01565 WP 000344154.1	IV	VDSVAALV	PKAEI	EGEMG	DSH	MGLQAR	LMSQ	AMRKL	TGN	LK	QSN	CM	C	IFIN	QIRM	KIG	VGM	.	FG	NPET	TTGG	NALKFY	A	218
NTDB id 1142 GTF74 RS11550 WP 000344154.1	IV	VDSVAALV	PKAEI	EGEMG	DSH	MGLQAR	LMSQ	AMRKL	TGN	LK	QSN	CM	C	IFIN	QIRM	KIG	VGM	.	FG	NPET	TTGG	NALKFY	A	218
NTDB id 1205 PSJM300 05545 AFN77183.1	II	VDSVAALV	PKAEI	EGEMG	D	HVGL	QARL	MSQAL	RKIT	GN	IKNA	NCLV	IFIN	QIRM	KIG	VGM	.	FG	SPET	TTGG	NALKFY	A	218	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	IV	VDSVAALV	PKAEI	EGEMG	DSH	MGLQAR	LMSQ	ALRKL	TGN	AKRS	NC	MV	IFIN	QIRM	KIG	VGM	.	FG	SPET	TTGG	NALKFY	A	218	
NTDB id 1074 ABD1 RS10195 WP 000344167.1	IV	VDSVAALV	PKAEI	EGEMG	DSH	MGLQAR	LMSQ	ALRKL	TGN	AKRS	NC	MV	IFIN	QIRM	KIG	VGM	.	FG	SPET	TTGG	NALKFY	A	218	
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 527 SMSK321 RS11065 WP 001085454.1  
 NTDB id 499 SM12261 RS08315 WP 078228268.1  
 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 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 1130 NGFG RS03960 WP 003688695.1  
 NTDB id 1124 NGFG RS03960 WP 003688695.1  
 NTDB id 1123 OK783 RS03845 WP 003688695.1  
 NTDB id 357641 E5678 RS17965 WP 136179802.1  
 NTDB id 1427 RS RS02760 WP 011000510.1  
 NTDB id 1389 A4U84 RS07560 WP 021112712.1  
 NTDB id 1165 A1552VC RS01565 WP 000344154.1  
 NTDB id 1142 GTF74 RS11550 WP 000344154.1  
 NTDB id 1205 PSJM300 05545 AFN77183.1  
 NTDB id 1022 ACIAD RS06390 WP 004925639.1  
 NTDB id 1074 ABD1 RS10195 WP 000344167.1

consensus



\*\*\*!!!\*\*\*\*\* \*\* \*\*\*\*\* \*\*\*\*\* \*\* \*\*

logo

	E	I	E	I	E	E	
NTDB id 600 KW2 RS01765 WP 011675413.1	.	.	.	.	.	.	387
NTDB id 269 KZH43 RS08665 WP 001085462.1	E	I	E	I	E	E	388
NTDB id 228 SPD RS09265 WP 001085462.1	E	I	E	I	E	E	388
NTDB id 194 SPR RS08825 WP 001085462.1	E	I	E	I	E	E	388
NTDB id 159 SP RS09750 WP 001085462.1	E	I	E	I	E	E	388
NTDB id 527 SMSK321 RS11065 WP 001085454.1	E	I	E	I	E	E	384
NTDB id 499 SM12261 RS08315 WP 078228268.1	E	I	E	I	E	E	384
NTDB id 453 Spy49 1753c ACI62003.1	E	I	E	D	.	.	378
NTDB id 408 SMU RS09530 WP 002262392.1	E	L	E	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
NTDB id 1334 RAOC RS04870 WP 004918236.1	.	.	.	.	.	.	343
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 357641 E5678 RS17965 WP 136179802.1	.	.	.	.	.	.	378
NTDB id 1427 RS RS02760 WP 011000510.1	.	.	.	.	.	.	352
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.	.	.	.	.	.	372
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 1022 ACIAD RS06390 WP 004925639.1	.	.	.	.	.	.	349
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.	.	.	.	.	.	349

consensus

 non conserved  
 similar  
 ≥ 50% conserved