

logo

NTDB id 600 KW2 RS01765 WP 011675413.1	MATKKKT...NFDDITKKYGA	ERDKALADALALIEKD	FGKGSIMRLGEA	.ANQKVSV	VSSGSLALD	I	ALGAGGY	PKGRIV	76			
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKKPK...KLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQV	MSSGSLALD	I	ALGSGGY	PKGRII	75			
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKKPK...KLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQV	MSSGSLALD	I	ALGSGGY	PKGRII	75			
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKKPK...KLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQV	MSSGSLALD	I	ALGSGGY	PKGRII	75			
NTDB id 159 SP RS09750 WP 001085462.1	.MAKKPK...KLEEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQV	MSSGSLALD	I	ALGSGGY	PKGRII	75			
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKKPK...KLDEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQV	MSSGSLALD	I	ALGSGGY	PKGRII	75			
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKKPK...KLDEISKKFGA	EREKALNDALKLIEKD	FGKGSIMRLGER	.AEQKVQV	MSSGSLALD	I	ALGSGGY	PKGRII	75			
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKRIK...KTEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQV	MSSGSLALD	I	ALGAGGY	PKGRIV	75			
NTDB id 453 Spy49 1753c ACI62003.1	.MAKKLK...KNEEITKKFGD	ERRKALDDALKNIEKD	FGKGAVMRLGER	.AEQKVQV	MSSGSLALD	I	ALGAGGY	PKGRII	75			
NTDB id 115 BSU 16940 NP 389576.2	MSDRQAALDMALKQIEKQ	FGKGSIMKLGEK	.TDTRIST	VPSGSLALD	T	ALGIGGY	PRGRII	60				
NTDB id 625 LCA RS02525 WP 011374196.1	MAKDERQAALDAALKKIEKN	FGKGSIMRMGEK	.VDTQVST	VSSGSLALDE	A	LGVGGY	PRGRIV	62				
NTDB id 1313 DR RS12030 WP 010888966.1	.MSKD....ATKEISAPTD	AKERSKATETAM	SKIEKAFGKGSIMKLGAE	.SKLDVQV	VSTGSLSLDL	A	LGVGGI	PRGRIT	74			
NTDB id 1245 Cj1673c YP 002345041.1	MDDNKRKSLDAALKSLDKT	FGKGTILRLGDK	.EVEQIDS	IGTGSVGLDL	A	LGI	GGV	PKGRII	61			
NTDB id 1211 C694 RS00795 WP 000963128.1	MAIDEDKQKAIISLAIKQID	KVFGKGAIVRLGDK	.QVEKIDA	ISTGSLGLDL	A	LGI	GGV	PKGRII	63			
NTDB id 1214 NCTC11637 00359 SQJ03206.1	MAIDEDKQKAIISLAIKQID	KVFGKGAIVRLGDK	.QVEKIDA	ISTGSLGLDL	A	LGI	GGV	PKGRII	63			
NTDB id 1334 RAOC RS04870 WP 004918236.1	MAKTETTSPND	KKKALA	AVLEKLDKT	YGKGTVMKLG	DGTVDH	NIEV	IPSGSLGLDL	A	LGVGGY	PKGRIV	70	
NTDB id 361637 FCL38 RS17570 WP 137314862.1	MDDKKA	AIPASEKAKALAAALAQIEKQ	FGKGSVMRMD	SSAPLEE	VQTVST	GSLGLD	I	ALGV	GGL	PRGRVV	70	
NTDB id 1427 RS RS02760 WP 011000510.1	MEDG	KKAASMSAEKQKALAAALAQIEKQ	FGKGSIMKMGD	.AEVEP	VQV	VSTGSLGLD	V	ALGV	GGL	PRGRVV	70	
NTDB id 1130 NGFG RS03960 WP 003688695.1	MSDDKSKALAAALAQIEKS	FGKGAIMKMDGS	QREEN	LEV	ISTGSLGLD	L	ALGV	GGL	PRGRIV	62		
NTDB id 1124 NGFG RS03960 WP 003688695.1	MSDDKSKALAAALAQIEKS	FGKGAIMKMDGS	QREEN	LEV	ISTGSLGLD	L	ALGV	GGL	PRGRIV	62		
NTDB id 1123 OK783 RS03845 WP 003688695.1	MSDDKSKALAAALAQIEKS	FGKGAIMKMDGS	QREEN	LEV	ISTGSLGLD	L	ALGV	GGL	PRGRIV	62		
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENK	KSSKNNTVVKQVEPEQ	KKQALEAALAQIEKQ	FGKGSIMKLGQT	.EQLD	IES	VSTGSLGLD	L	ALGI	GGL	PMGRIV	78
NTDB id 1165 A1552VC RS01565 WP 000344154.1	MDENKQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVET	ISTGSLSLD	I	ALGAGGL	PMGRIV	61				
NTDB id 1142 GTF74 RS11550 WP 000344154.1	MDENKQKALAAALGQIEKQ	FGKGSIMRLGDN	.RAMDVET	ISTGSLSLD	I	ALGAGGL	PMGRIV	61				
NTDB id 1205 PSJM300 05545 AFN77183.1	MDENKKRALAAALGQIEKQ	FGKGAVMRMDH	.DRQAIPS	ISTGSLGLD	I	ALGI	GGL	PKGRIV	61			
NTDB id 1022 ACIAD RS06390 WP 004925639.1	MDDNKSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEA	VSTGSLTLD	I	ALGI	GGL	PKGRIV	61			
NTDB id 1074 ABD1 RS10195 WP 000344167.1	MDENKSKALQAALSQIEKQ	FGKNTVMRLGDN	.TVQAVEA	VSTGSLTLD	I	ALGI	GGL	PKGRII	61			
consensus	***	***	*	***!	*!!	*****	*	***!!*!!*!!*!!*!!*!!*!!*!!*				

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NTDB id 600 KW2 RS01765 WP 011675413.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDAENALDPEYAKALGVNIDELL	LSQPDYGEQGLQIAEKLITSGAVDLVV	156																
NTDB id 269 KZH43 RS08665 WP 001085462.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 228 SPD RS09265 WP 001085462.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 194 SPR RS08825 WP 001085462.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 159 SP RS09750 WP 001085462.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 499 SM12261 RS08315 WP 078228268.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 527 SMSK321 RS11065 WP 001085454.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 408 SMU RS09530 WP 002262392.1	EIYGPESSGKTTVALHAVAQKQDGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LSQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 453 Spy49 1753c ACI62003.1	EIYGPESSGKTTVALHAVAQKQEGGIAAFIDA	EAHALDPAYAAAALGVNIDELL	LAQPDSEGEQGLEIAGKLIDSGAVDLVV	155															
NTDB id 115 BSU 16940 NP 389576.2	EVIYGPESSGKTTVALHAI	AEVQKQGGQAAFI	DAEHALDPVYAQKLG	VNI	EELL	LSQPD	TGEQ	ALEIAE	ALVR	SGAV	DIVV	140							
NTDB id 625 LCA RS02525 WP 011374196.1	EIYGPESSGKTTVALHAVA	EVQKQGGTAA	YIDAENAMDPKY	ATALGVNID	DL	LLSQPD	TGEQ	GLEI	ADAL	VSSG	AVDILV	142							
NTDB id 1313 DR RS12030 WP 010888966.1	EIYGPESSGKTTVALAI	VAQAQKAGGTCAFI	DAEHALDPVYARALGVN	TDELL	VSQPD	NGEQ	ALEIMEL	LLVR	SGAID	VVV	154								
NTDB id 1245 Cj1673c YP 002345041.1	EIYGPESSGKTTTL	HLHIAECQKAGGVC	AFIDA	EAHALDVKYAKNLGVN	TDL	LYVSQPD	FGEQ	ALEIVE	TI	ARSG	AVDLIV	141							
NTDB id 1211 C694 RS00795 WP 000963128.1	EIYGPESSGKTTLSLHI	IAECQKNGGVC	AFIDA	EAHALDVHYAKRLGVD	TEN	LLVSQPD	TGEQ	ALEILE	TI	TRSG	GIDLVV	143							
NTDB id 1214 NCTC11637 00359 SQJ03206.1	EIYGPESSGKTTLSLHI	IAECQKNGGVC	AFIDA	EAHALDVHYAKRLGVD	TEN	LLVSQPD	TGEQ	ALEILE	TI	TRSG	GIDLVV	143							
NTDB id 1334 RAOC RS04870 WP 004918236.1	EIYGPESSGKTTTL	HLHIAEAQKVGTTAAFI	DAEHA	FDMHYAEKLG	INLE	ELIVSQPD	NGEQ	ALEI	ADSL	IRSG	GVDIVV	150							
NTDB id 361637 FCL38 RS17570 WP 137314862.1	EIYGPESSGKTTTL	LQTLAEMQKLG	GTCAFI	DAEHALDVTY	AQKLG	VNLHELL	ISQPD	TGEQ	ALEICD	ALVR	SGS	VDMVV	150						
NTDB id 1427 RS RS02760 WP 011000510.1	EIYGPESSGKTTTL	LQVVAEMQKLG	GTCAFI	DAEHALDVTY	ADKLG	VKVP	DL	LISQPD	TGEQ	ALEI	ADAL	VRSG	SVDLIV	150					
NTDB id 1130 NGFG RS03960 WP 003688695.1	EIYFGPESSGKTTLCLE	AVAQCQKNGGVC	AFVDAEHA	FD	PVYARKLG	GVKVEELY	LSQPD	TGEQ	ALEICD	TLVR	SGGID	MVV	142						
NTDB id 1124 NGFG RS03960 WP 003688695.1	EIYFGPESSGKTTLCLE	AVAQCQKNGGVC	AFVDAEHA	FD	PVYARKLG	GVKVEELY	LSQPD	TGEQ	ALEICD	TLVR	SGGID	MVV	142						
NTDB id 1123 OK783 RS03845 WP 003688695.1	EIYFGPESSGKTTLCLE	AVAQCQKNGGVC	AFVDAEHA	FD	PVYARKLG	GVKVEELY	LSQPD	TGEQ	ALEICD	TLVR	SGGID	MVV	142						
NTDB id 1389 A4U84 RS07560 WP 021112712.1	EIYGPESSGKTTTL	LSLIAQAQKGNKTC	AFIDA	EAHALDPVYARNLGVN	TDELL	ISQPD	NGEQ	ALEICD	ALVR	SGAV	DVII	158							
NTDB id 1165 A1552VC RS01565 WP 000344154.1	EIYFGPESSGKTTTL	LLELIAAAQ	REGKTC	AFIDA	EAHALDPVYAKKLG	VNI	DELL	VSQPD	TGEQ	ALEICD	ALAR	SGAV	DVIV	141					
NTDB id 1142 GTF74 RS11550 WP 000344154.1	EIYFGPESSGKTTTL	LLELIAAAQ	REGKTC	AFIDA	EAHALDPVYAKKLG	VNI	DELL	VSQPD	TGEQ	ALEICD	ALAR	SGAV	DVIV	141					
NTDB id 1205 PSJM300 05545 AFN77183.1	EIYGPESSGKTTTL	LSVIAAAQ	RMGSTC	AFVDAEHA	LD	PQYAGKLG	VNV	DDL	VSQPD	TGEQ	ALEIT	DML	VR	SN	AVDVII	141			
NTDB id 1022 ACIAD RS06390 WP 004925639.1	EIYGPESSGKTTMTL	LQIAI	AQCQKAGGTCAFI	DAEHALDPQY	ARKLG	V	DN	LLVSQPD	HGEQ	ALEI	ADML	VR	SGAID	LIV	141				
NTDB id 1074 ABD1 RS10195 WP 000344167.1	EIYGPESSGKTTMTL	LQIAI	AQCQKSGGTCAFI	DAEHALDPQY	ARKLG	V	DN	LLVSQPD	NGEQ	ALEI	ADML	VR	SGAID	LIV	141				
consensus	!*	*****	!*	!!	!!	*****	!*	!!	!!	*****	!*	!!	!!	*****	!*	!!	*****	!*	!!

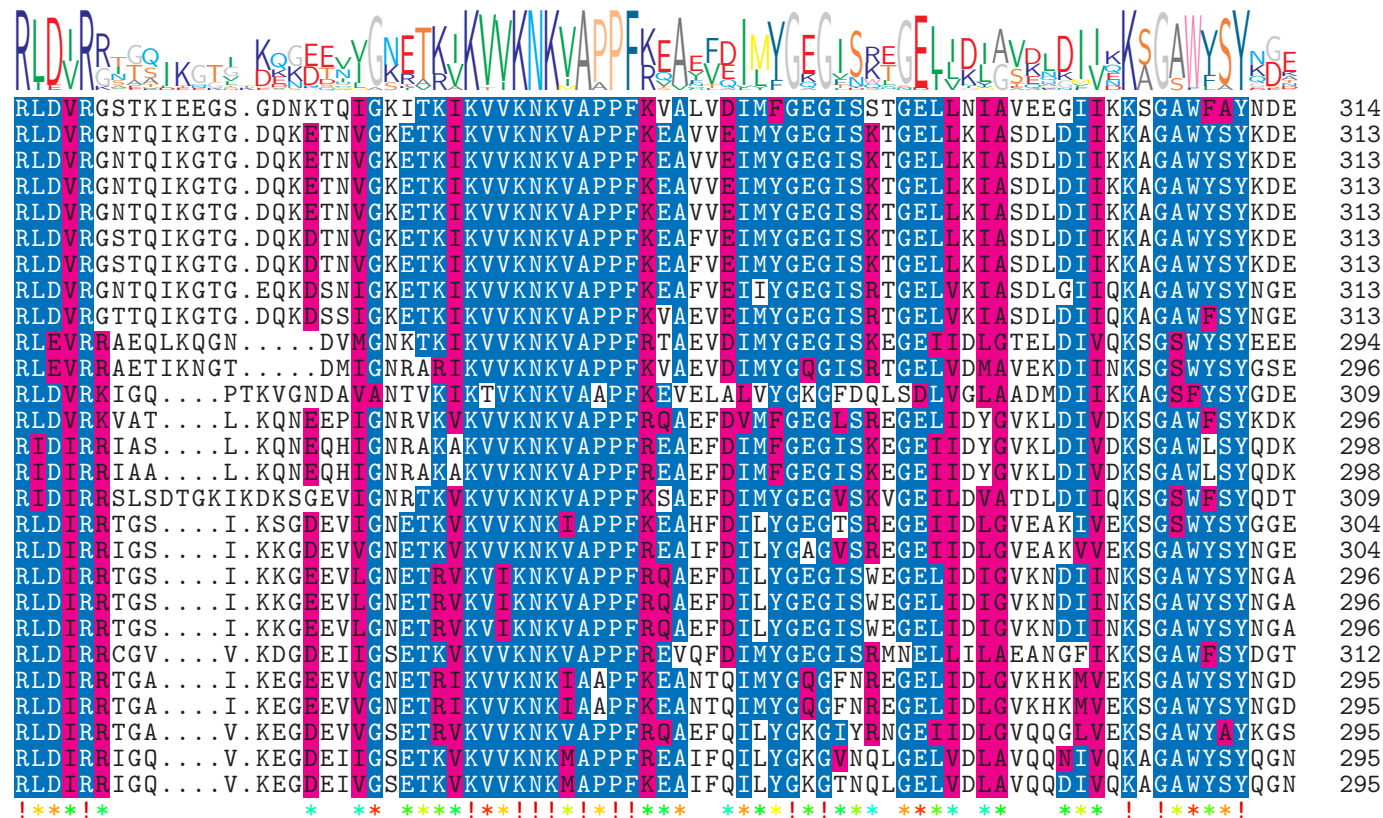
logo

NTDB id 600 KW2 RS01765 WP 011675413.1	I	D	S	V	A	A	L	V	P	K	A	E	I	D	G	E	I	G	D	S	S	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	A	G	H	I	N	K	T	K	T	T	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	235		
NTDB id 269 KZH43 RS08665 WP 001085462.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	234		
NTDB id 228 SPD RS09265 WP 001085462.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	234		
NTDB id 194 SPR RS08825 WP 001085462.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	234		
NTDB id 159 SP RS09750 WP 001085462.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	234		
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NTDB id 527 SMSK321 RS11065 WP 001085454.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	G	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	234		
NTDB id 408 SMU RS09530 WP 002262392.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	S	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	I	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	S	S	V	234		
NTDB id 453 Spy49 1753c ACI62003.1	V	D	S	V	A	A	L	V	P	R	A	E	I	D	G	D	I	G	D	S	H	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	S	A	S	I	N	K	T	K	T	I	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	S	V	234		
NTDB id 115 BSU 16940 NP 389576.2	V	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	M	G	D	S	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	S	G	A	I	N	K	S	K	T	I	A	I	F	I	N	Q	I	R	E	K	V	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	S	S	V	219	
NTDB id 625 LCA RS02525 WP 011374196.1	V	D	S	V	A	A	L	V	P	R	A	E	I	E	G	E	M	G	D	A	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	S	G	T	I	N	K	T	K	T	I	A	L	F	I	N	Q	I	R	E	K	V	G	V	M	.	F	G	N	P	E	V	T	P	G	G	R	A	L	K	F	Y	S	T	V	221	
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NTDB id 1211 C694 RS00795 WP 000963128.1	V	D	S	V	A	A	L	T	P	K	A	E	I	D	G	D	M	G	D	Q	H	V	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	I	V	L	H	K	M	N	T	T	L	I	F	I	N	Q	I	R	M	K	I	G	M	M	G	Y	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	V	223
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NTDB id 1165 A1552VC RS01565 WP 000344154.1	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	M	L	S	Q	A	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	I	R	M	K	I	G	V	M	.	F	G	N	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	V	220	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	M	L	S	Q	A	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	I	R	M	K	I	G	V	M	.	F	G	N	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	V	220	
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NTDB id 1022 ACIAD RS06390 WP 004925639.1	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	E	M	G	D	S	H	M	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	N	A	K	R	S	N	C	M	V	I	F	I	N	Q	I	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	V	220	
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consensus	*	!	!	!	!	!	!	!	!	*	!	!	!	!	*	!	!	!	!	*	!	!	!	*	!	!	!	*	!	!	!	*	!	!	!	*	!	!	!	!	*	!	!	!	!</																																					

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NTDB id 408 SMU RS09530 WP 002262392.1
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NTDB id 115 BSU 16940 NP 389576.2
NTDB id 625 LCA RS02525 WP 011374196.1
NTDB id 1313 DR RS12030 WP 010888966.1
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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 361637 FCL38 RS17570 WP 137314862.1
NTDB id 1427 RS RS02760 WP 011000510.1
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 1389 A4U84 RS07560 WP 021112712.1
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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

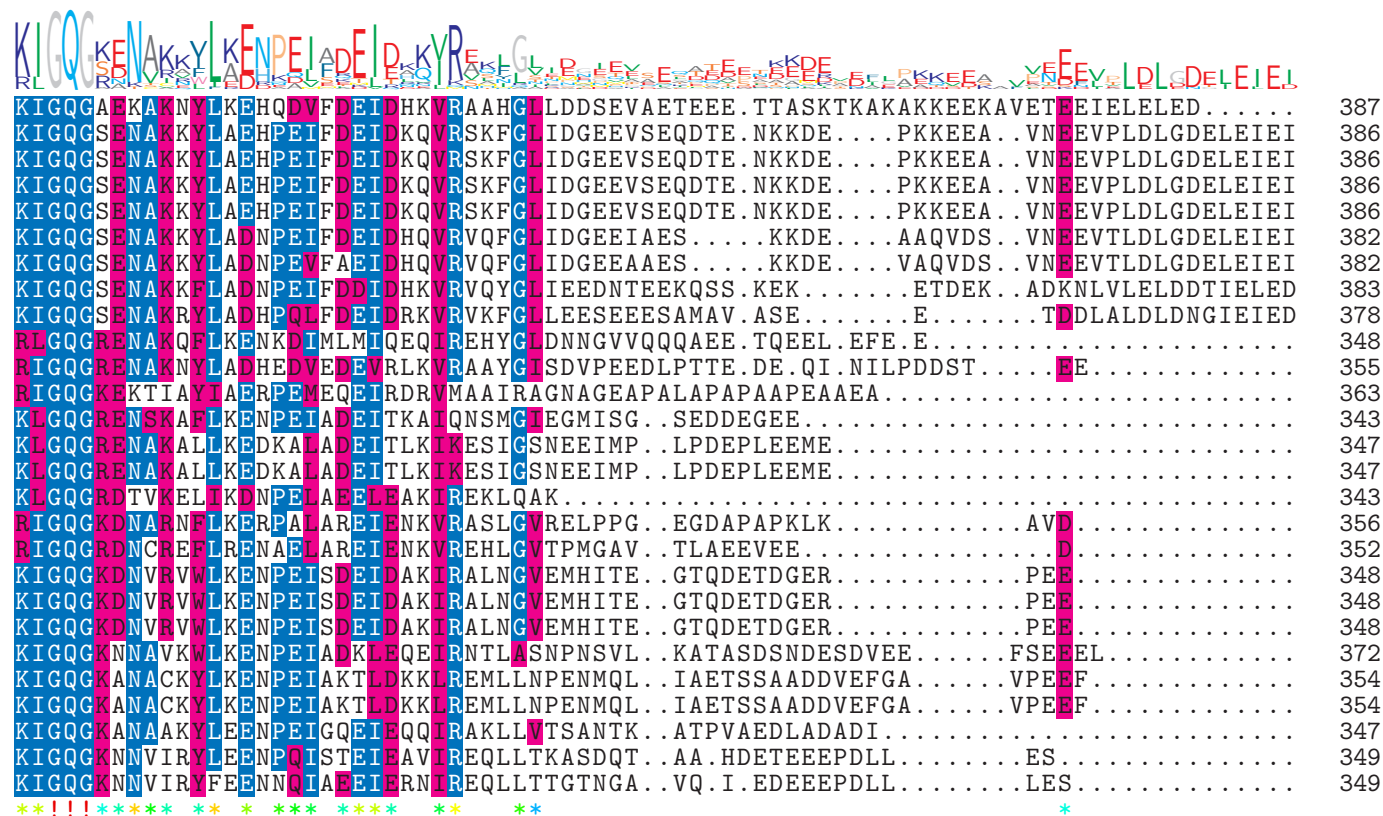
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NTDB id 1205 PSJM300 05545 AFN77183.1
NTDB id 1022 ACIAD RS06390 WP 004925639.1
NTDB id 1074 ABD1 RS10195 WP 000344167.1
consensus

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logo

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NTDB id 269 KZH43 RS08665 WP 001085462.1	EE	388
NTDB id 228 SPD RS09265 WP 001085462.1	EE	388
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NTDB id 1211 C694 RS00795 WP 000963128.1	..	347
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consensus

 non conserved
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 ≥ 50% conserved