

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	...MATKKKTNFDDITKKYGA	ERD	KALADALAL	IEKD	FGKGSIMRLC	EA	ANQK	VS	VS	SS	GSLALD	I	ALG	AGGY	PKGRI	75	
NTDB id 269 KZH43 RS08665 WP 001085462.1	....MAKKPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	SGGY	PKGRI	74
NTDB id 228 SPD RS09265 WP 001085462.1	....MAKKPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	SGGY	PKGRI	74
NTDB id 194 SPR RS08825 WP 001085462.1	....MAKKPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	SGGY	PKGRI	74
NTDB id 159 SP RS09750 WP 001085462.1	....MAKKPKKLEEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	SGGY	PKGRI	74
NTDB id 527 SMSK321 RS11065 WP 001085454.1	....MAKKPKKLDEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	SGGY	PKGRI	74
NTDB id 499 SM12261 RS08315 WP 078228268.1	....MAKKPKKLDEISKKFGA	ERE	KALNDALKL	IEKD	FGKGSIMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	SGGY	PKGRI	74
NTDB id 453 Spy49 1753c ACI62003.1	....MAKKLKKNEEITKKFGD	ERR	KALDDALKN	IEKD	FGKGAVMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	AGGY	PKGRI	74
NTDB id 408 SMU RS09530 WP 002262392.1	....MAKRRIKTEEITKKFGD	ERR	KALDDALKN	IEKD	FGKGAVMRLC	ER	AEQK	VQ	VM	SS	GSLALD	I	ALG	AGGY	PKGRI	74
NTDB id 115 BSU 16940 NP 389576.2	.....MSDRQAALDMALK	QIE	QFGKGSIMKLC	EK	TDTR	ST	PS	GSLALD	I	ALG	IGGY	PKGRI	59			
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKDERQAALDAALK	KIE	NFGKGSIMRM	EK	VDTQ	ST	PS	GSLALD	E	ALG	VGGY	PKGRI	61			
NTDB id 1313 DR RS12030 WP 010888966.1MSKDATKEISAPTDAK	ERS	KALETAM	SI	IEKA	FGKGSIMKLC	AE	SKLD	VQ	VM	SS	GSLALD	I	ALG	VGGY	PKGRI	73
NTDB id 1132880 NMG72 RS05695 WP 026797022.1	.....MAK..DTKDNSSSEK	KKAL	TLVNL	QIE	KSFGKGAIVRLC	DS	TRMK	VET	PS	CAL	TLD	EALG	GGL	PKGRV	67	
NTDB id 1245 Cj1673c YP 002345041.1	.....MDDNKRKSLDAALK	SLD	KTFGKCT	ILRL	CDK	EVEQ	DS	IG	TGS	VGLD	I	ALG	IGGY	PKGRI	60	
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDEDKQKATSLAT	KID	KVFGKCALVRL	CDK	QVEK	DS	ST	GSLGLD	I	ALG	IGGY	PKGRI	62			
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDEDKQKATSLAT	KID	KVFGKCALVRL	CDK	QVEK	DS	ST	GSLGLD	I	ALG	IGGY	PKGRI	62			
NTDB id 1334 RA0C RS04870 WP 004918236.1	.....MAK..TETTSPND	DKK	KALAAVLEK	LD	KTYGKCT	VMKLC	GTVD	HNI	EV	PS	GSLGLD	I	ALG	VGGY	PKGRI	69
NTDB id 1389 A4U84 RS07560 WP 021112712.1	MAENKKSSKNNT..VVKQ	VEPE	QKQALEAAL	AG	IEKQ	FGKGSIMKLC	QT	EQLD	ES	VS	GSLGLD	I	ALG	IGGL	PMGRI	77	
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSDDKSKALAAAL	AG	IEKSF	GKGAIMKMD	GSQ	QEE	NLE	VI	ST	GSLGLD	I	ALG	VGGY	PKGRI	61	
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSDDKSKALAAAL	AG	IEKSF	GKGAIMKMD	GSQ	QEE	NLE	VI	ST	GSLGLD	I	ALG	VGGY	PKGRI	61	
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSDDKSKALAAAL	AG	IEKSF	GKGAIMKMD	GSQ	QEE	NLE	VI	ST	GSLGLD	I	ALG	VGGY	PKGRI	61	
NTDB id 1427 RS RS02760 WP 011000510.1	MEDG.....KKAASMSA	EKK	KALAAAL	AG	IEKQ	FGKGSIMKMC	DA	EVEP	VQ	VM	SS	GSLGLD	I	ALG	VGGY	PKGRV	69
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDENKQKALAAAL	AG	IEKQ	FGKGSIMRLC	DN	RAMD	VET	ST	GSLSLD	I	ALG	AGGL	PMGRI	60		
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDENKQKALAAAL	AG	IEKQ	FGKGSIMRLC	DN	RAMD	VET	ST	GSLSLD	I	ALG	AGGL	PMGRI	60		
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDENKSKALQAALS	AG	IEKQ	FGKNTVMRLC	DN	TVQA	VEAV	ST	GSLTLD	I	ALG	IGGL	PKGRI	60		
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDNKSKALQAALS	AG	IEKQ	FGKNTVMRLC	DN	TVQA	VEAV	ST	GSLTLD	I	ALG	IGGL	PKGRI	60		
NTDB id 1205 PSJM300 05545 AFN77183.1	.....MDENKRFALAAAL	AG	IEKQ	FGKGAVMRM	GDH	DRQA	PS	ST	GSLGLD	I	ALG	IGGL	PKGRI	60		
consensus		**	***	**	***!	*!!	*****	*	***!	***!	*!!!	!!!	!!!	!!*	!!*		

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	V	I	D	S	V	A	A	L	V	P	K	A	E	I	D	G	S	S	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	A	C	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	234					
NTDB id 269 KZH43 RS08665 WP 001085462.1	V	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	T	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	233	
NTDB id 228 SPD RS09265 WP 001085462.1	V	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	T	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	233	
NTDB id 194 SPR RS08825 WP 001085462.1	V	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	T	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	233	
NTDB id 159 SP RS09750 WP 001085462.1	V	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	T	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	233	
NTDB id 527 SMSK321 RS11065 WP 001085454.1	V	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	T	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	233	
NTDB id 499 SM12261 RS08315 WP 078228268.1	V	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	T	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	233	
NTDB id 453 Spy49 1753c ACI62003.1	V	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	T	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	233	
NTDB id 408 SMU RS09530 WP 002262392.1	V	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	T	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	S	233		
NTDB id 115 BSU 16940 NP 389576.2	V	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	T	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	S	218	
NTDB id 625 LCA RS02525 WP 011374196.1	V	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	T	A	I	F	I	N	Q	L	R	E	K	V	G	V	M	.	F	G	N	P	E	V	T	P	G	G	R	A	L	K	F	Y	S	220	
NTDB id 1313 DR RS12030 WP 010888966.1	V	V	D	S	V	A	A	L	T	P	R	A	E	I	E	G	D	M	G	D	S	L	P	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	A	I	L	S	K	T	G	T	A	A	I	F	I	N	Q	V	R	E	K	T	G	V	M	.	Y	C	N	P	E	T	T	T	G	G	R	A	L	K	F	Y	A	S	232
NTDB id 1132880 NMG72 RS05695 WP 026797022.1	V	I	D	S	V	A	A	L	V	P	R	A	E	I	E	G	D	M	G	D	S	H	M	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	N	I	G	K	S	N	C	T	V	I	F	L	N	Q	L	R	Q	K	T	G	V	V	.	Y	C	N	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	226
NTDB id 1245 Cj1673c YP 002345041.1	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	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	H	K	M	N	T	V	I	F	I	N	Q	L	R	M	K	I	G	A	M	G	Y	G	T	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	220	
NTDB id 1211 C694 RS00795 WP 000963128.1	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	D	M	G	D	Q	H	V	G	L	Q	A	R	L	M	S	H	A	L	R	K	I	T	G	V	L	H	K	M	N	T	L	I	F	I	N	Q	L	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	222	
NTDB id 1214 NCTC11637 00359 SQJ03206.1	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	D	M	G	D	Q	H	V	G	L	Q	A	R	L	M	S	H	A	L	R	K	I	T	G	V	L	H	K	M	N	T	L	I	F	I	N	Q	L	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	222	
NTDB id 1334 RA0C RS04870 WP 004918236.1	V	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	D	M	G	D	S	K	M	G	L	H	A	R	L	M	S	Q	A	L	R	K	L	T	S	S	I	S	K	T	K	C	T	V	I	F	I	N	Q	L	R	D	K	I	G	V	M	.	F	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	A	S	228
NTDB id 1389 A4U84 RS07560 WP 021112712.1	I	V	D	S	V	A	A	L	T	P	K	A	E	I	E	G	D	M	G	D	S	H	M	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	A	N	I	K	N	T	N	C	L	V	V	F	I	N	Q	L	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	236
NTDB id 1130 NGFG RS03960 WP 003688695.1	V	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	T	G	H	I	K	K	T	N	T	L	V	V	F	I	N	Q	L	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	S	220	
NTDB id 1124 NGFG RS03960 WP 003688695.1	V	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	T	G	H	I	K	K	T	N	T	L	V	V	F	I	N	Q	L	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	S	220	
NTDB id 1123 OK783 RS03845 WP 003688695.1	V	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	T	G	H	I	K	K	T	N	T	L	V	V	F	I	N	Q	L	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	T	G	G	N	A	L	K	F	Y	S	220	
NTDB id 1427 RS RS02760 WP 011000510.1	V	I	D	S	V	A	A	L	V	P	K	A	E	I	E	G	E	M	G	D	A	L	P	G	L	Q	A	R	L	M	S	Q	A	L	R	K	L	T	G	T	I	K	E	T	N	C	L	V	I	F	I	N	Q	L	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	228
NTDB id 1165 A1552VC RS01565 WP 000344154.1	V	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	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	L	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	219
NTDB id 1142 GTF74 RS11550 WP 000344154.1	V	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	M	R	K	L	T	G	N	L	K	Q	S	N	C	M	C	I	F	I	N	Q	L	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	219
NTDB id 1074 ABD1 RS10195 WP 000344167.1	V	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	L	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	219
NTDB id 1022 ACIAD RS06390 WP 004925639.1	V	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	L	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	219
NTDB id 1205 PSJM300 05545 AFN77183.1	I	V	D	S	V	A	A	L	V	P	K	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	T	G	N	I	K	N	A	N	C	L	V	I	F	I	N	Q	L	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	219

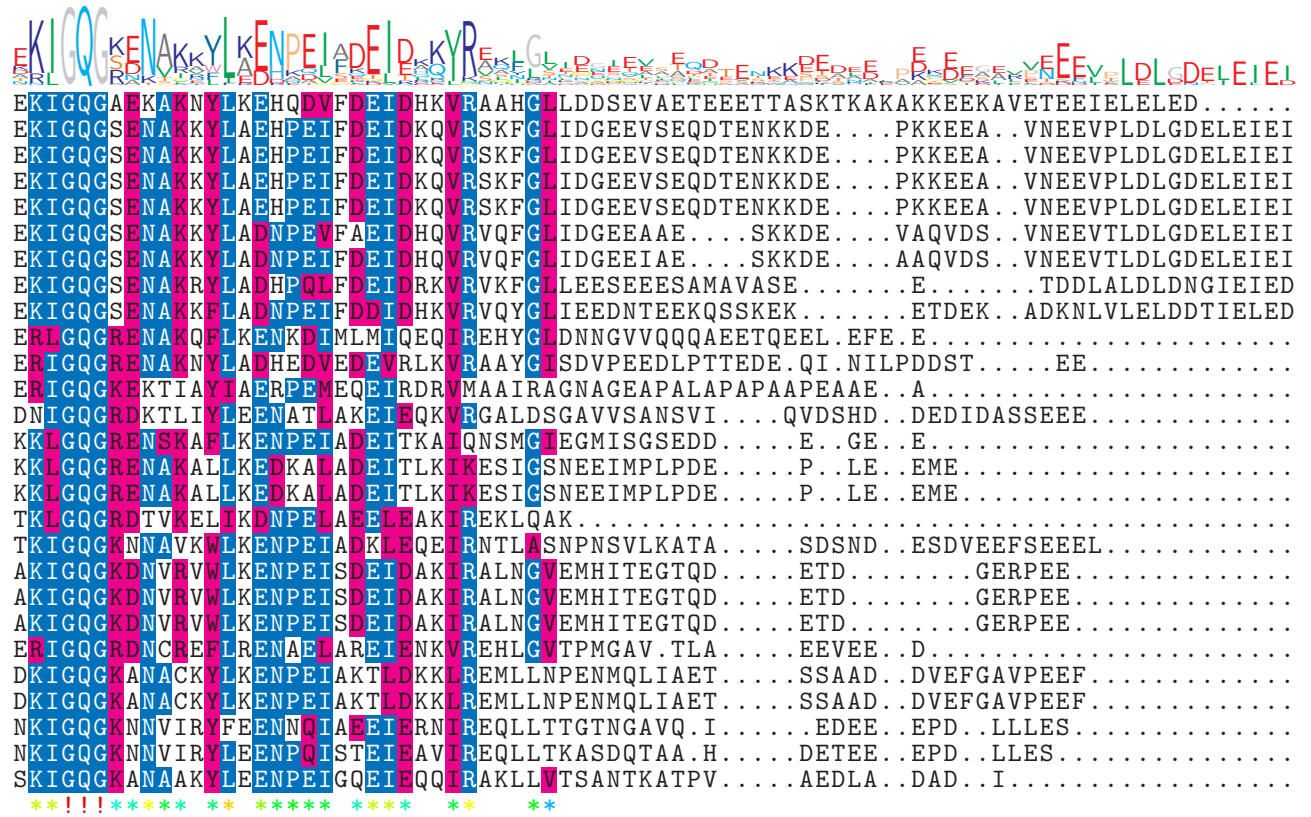
logo



NTDB id 600 KW2 RS01765 WP 011675413.1	VRLDVRG	STKIEEGS	.GDNKTQI	GKI	TKI	KVVKNKV	VAPPF	KVALVD	IMF	GEGIS	STGEL	LNIA	VEEGTI	IKK	SGAWF	AYND	313																																																											
NTDB id 269 KZH43 RS08665 WP 001085462.1	VRLDVRG	NNTQIKGTG	.DQKE	TNV	GKETK	KVVKNKV	VAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDLDI	IKK	AGAWYS	YKD	312																																																											
NTDB id 228 SPD RS09265 WP 001085462.1	VRLDVRG	NNTQIKGTG	.DQKE	TNV	GKETK	KVVKNKV	VAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDLDI	IKK	AGAWYS	YKD	312																																																											
NTDB id 194 SPR RS08825 WP 001085462.1	VRLDVRG	NNTQIKGTG	.DQKE	TNV	GKETK	KVVKNKV	VAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDLDI	IKK	AGAWYS	YKD	312																																																											
NTDB id 159 SP RS09750 WP 001085462.1	VRLDVRG	NNTQIKGTG	.DQKE	TNV	GKETK	KVVKNKV	VAPPF	KEAVVE	IMY	GEGIS	KTGEL	LKIAS	SDLDI	IKK	AGAWYS	YKD	312																																																											
NTDB id 527 SMSK321 RS11065 WP 001085454.1	VRLDVRG	STQIKGTG	.DQKD	TNV	GKETK	KVVKNKV	VAPPF	KEAFVE	IMY	GEGIS	KTGEL	LKIAS	SDLDI	IKK	AGAWYS	YKD	312																																																											
NTDB id 499 SM12261 RS08315 WP 078228268.1	VRLDVRG	STQIKGTG	.DQKD	TNV	GKETK	KVVKNKV	VAPPF	KEAFVE	IMY	GEGIS	KTGEL	LKIAS	SDLDI	IKK	AGAWYS	YKD	312																																																											
NTDB id 453 Spy49 1753c ACI62003.1	VRLDVRG	TTQIKGTG	.DQK	SSI	GKETK	KVVKNKV	VAPPF	KVAEVE	IMY	GEGIS	RTGEL	VKIAS	SDLDI	I	QKAGAW	FSYNG	312																																																											
NTDB id 408 SMU RS09530 WP 002262392.1	VRLDVRG	NNTQIKGTG	.EQK	SNL	GKETK	KVVKNKV	VAPPF	KEAFVE	I	Y	GEGIS	RTGEL	VKIAS	DLGI	I	QKAGAWYS	NG	312																																																										
NTDB id 115 BSU 16940 NP 389576.2	VRL	EVRR	A	E	Q	L	K	Q	G	N	D	V	M	G	N	K	T	K	I	K	V	V	K	N	K	V	A	P	P	F	R	T	A	E	V	D	I	M	Y	G	E	G	I	S	K	E	G	E	I	I	D	L	G	T	E	L	D	I	V	Q	K	S	G	S	W	Y	S	Y	E	E	293				
NTDB id 625 LCA RS02525 WP 011374196.1	VRL	EVRR	A	E	T	I	K	N	G	T	D	M	I	G	N	R	A	R	I	K	V	V	K	N	K	V	A	P	P	F	K	V	A	E	V	D	I	M	Y	G	G	I	S	R	T	G	E	L	V	D	M	A	V	E	K	D	I	I	N	K	S	G	S	W	Y	S	Y	G	S	295					
NTDB id 1313 DR RS12030 WP 010888966.1	VRLDVR	K	I	G	Q	P	T	K	V	G	N	D	A	V	A	N	T	V	K	I	K	T	V	K	N	K	V	A	A	P	F	K	E	V	E	L	A	L	V	Y	G	K	G	F	D	Q	L	S	D	I	V	G	L	A	A	D	M	D	I	I	K	K	A	G	S	F	Y	S	Y	G	D	308			
NTDB id 1132880 NMG72 RS05695 WP 026797022.1	VRLD	I	R	R	I	Q	T	L	K	R	G	T	D	E	Y	G	I	R	A	K	V	K	V	A	K	N	K	I	A	P	P	F	R	I	A	E	F	D	I	I	F	G	K	G	I	S	T	L	G	C	L	I	D	L	A	E	E	T	G	V	L	K	R	K	G	A	W	Y	S	Y	N	G	301		
NTDB id 1245 Cj1673c YP 002345041.1	VRLDVR	K	V	A	T	L	K	Q	N	E	P	I	G	N	R	V	K	V	V	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	V	M	F	G	E	G	I	S	R	E	G	E	L	I	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	F	S	Y	K	D	295							
NTDB id 1211 C694 RS00795 WP 000963128.1	VRLD	I	R	R	I	A	S	L	K	Q	N	E	Q	H	I	G	N	R	A	K	A	K	V	V	K	N	K	V	A	P	P	F	R	E	A	E	F	D	I	M	F	G	E	G	I	S	K	E	G	E	I	I	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	L	S	Y	Q	D	297		
NTDB id 1214 NCTC11637 00359 SQJ03206.1	VRLD	I	R	R	I	A	A	L	K	Q	N	E	Q	H	I	G	N	R	A	K	A	K	V	V	K	N	K	V	A	P	P	F	R	E	A	E	F	D	I	M	F	G	E	G	I	S	K	E	G	E	I	I	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	L	S	Y	Q	D	297		
NTDB id 1334 RA0C RS04870 WP 004918236.1	VRLD	I	R	R	S	L	S	D	T	G	K	I	K	D	K	S	G	E	V	I	G	N	R	T	K	V	V	K	N	K	V	A	P	P	F	K	S	A	E	F	D	I	M	Y	G	E	C	V	S	K	V	G	E	I	L	D	V	A	T	D	L	D	I	I	Q	K	S	G	S	W	F	S	Y	Q	D	308
NTDB id 1389 A4U84 RS07560 WP 021112712.1	VRLD	I	R	R	C	G	V	V	K	D	G	D	E	I	I	G	S	E	T	K	V	V	V	K	N	K	V	A	P	P	F	R	E	V	Q	F	D	I	M	Y	G	E	G	I	S	R	M	N	E	L	I	L	A	E	A	N	G	F	I	K	K	S	G	A	W	F	S	Y	D	G	311				
NTDB id 1130 NGFG RS03960 WP 003688695.1	VRLD	I	R	R	T	G	S	I	K	K	G	E	E	V	L	G	N	E	T	R	V	K	V	I	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	I	L	Y	G	E	G	I	S	W	E	G	E	L	I	D	I	G	V	K	N	D	I	I	N	K	S	G	A	W	Y	S	Y	N	G	295		
NTDB id 1124 NGFG RS03960 WP 003688695.1	VRLD	I	R	R	T	G	S	I	K	K	G	E	E	V	L	G	N	E	T	R	V	K	V	I	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	I	L	Y	G	E	G	I	S	W	E	G	E	L	I	D	I	G	V	K	N	D	I	I	N	K	S	G	A	W	Y	S	Y	N	G	295		
NTDB id 1123 OK783 RS03845 WP 003688695.1	VRLD	I	R	R	T	G	S	I	K	K	G	E	E	V	L	G	N	E	T	R	V	K	V	I	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	I	L	Y	G	E	G	I	S	W	E	G	E	L	I	D	I	G	V	K	N	D	I	I	N	K	S	G	A	W	Y	S	Y	N	G	295		
NTDB id 1427 RS RS02760 WP 011000510.1	VRLD	I	R	R	I	G	S	I	K	K	G	D	E	V	V	G	N	E	T	K	V	V	V	K	N	K	V	A	P	P	F	R	E	A	I	F	D	I	L	Y	G	A	C	V	S	R	E	G	E	I	I	D	L	G	V	E	A	K	V	V	E	K	S	G	A	W	Y	S	Y	N	G	303			
NTDB id 1165 A1552VC RS01565 WP 000344154.1	VRLD	I	R	R	T	G	A	I	K	E	G	E	E	V	V	G	N	E	T	R	I	K	V	V	K	N	K	I	A	A	P	F	K	E	A	N	T	Q	I	M	Y	G	G	C	F	N	R	E	G	E	L	I	D	L	G	V	K	H	K	M	V	E	K	S	G	A	W	Y	S	Y	N	G	294		
NTDB id 1142 GTF74 RS11550 WP 000344154.1	VRLD	I	R	R	T	G	A	I	K	E	G	E	E	V	V	G	N	E	T	R	I	K	V	V	K	N	K	I	A	A	P	F	K	E	A	N	T	Q	I	M	Y	G	G	C	F	N	R	E	G	E	L	I	D	L	G	V	K	H	K	M	V	E	K	S	G	A	W	Y	S	Y	N	G	294		
NTDB id 1074 ABD1 RS10195 WP 000344167.1	VRLD	I	R	R	I	G	Q	V	K	E	G	D	E	I	V	G	S	E	T	K	V	V	V	K	N	K	M	A	P	P	F	K	E	A	I	F	Q	I	L	Y	G	K	G	T	N	Q	L	G	E	L	V	D	L	A	V	Q	Q	N	I	V	Q	K	A	G	A	W	Y	S	Y	Q	D	294			
NTDB id 1022 ACIAD RS06390 WP 004925639.1	VRLD	I	R	R	I	G	Q	. . . .	V	K	E	G	D	E	I	I	G																																																										

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 1132880 NMG72 RS05695 WP 026797022.1
 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 RA0C RS04870 WP 004918236.1
 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 1074 ABD1 RS10195 WP 000344167.1
 NTDB id 1022 ACIAD RS06390 WP 004925639.1
 NTDB id 1205 PSJM300 05545 AFN77183.1
 consensus



logo

```
NTDB id 600 KW2 RS01765 WP 011675413.1 .. 387
NTDB id 269 KZH43 RS08665 WP 001085462.1 EE 388
NTDB id 228 SPD RS09265 WP 001085462.1 EE 388
NTDB id 194 SPR RS08825 WP 001085462.1 EE 388
NTDB id 159 SP RS09750 WP 001085462.1 EE 388
NTDB id 527 SMSK321 RS11065 WP 001085454.1 EE 384
NTDB id 499 SM12261 RS08315 WP 078228268.1 EE 384
NTDB id 453 Spy49 1753c ACI62003.1 .. 378
NTDB id 408 SMU RS09530 WP 002262392.1 .. 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 1132880 NMG72 RS05695 WP 026797022.1 .. 362
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 RA0C RS04870 WP 004918236.1 .. 343
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 1074 ABD1 RS10195 WP 000344167.1 .. 349
NTDB id 1022 ACIAD RS06390 WP 004925639.1 .. 349
NTDB id 1205 PSJM300 05545 AFN77183.1 .. 347
consensus
```

 non conserved
 similar
 ≥ 50% conserved