

logo



NTDB id 600 KW2 RS01765 WP 011675413.1	VV	I	D	S	V	A	A	L	V	P	K	A	E	I	E	G	D	S	V	G	L	Q	A	R	M	S	Q	A	M	R	K	L	A	G	H	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	.	233						
NTDB id 269 KZH43 RS08665 WP 001085462.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 228 SPD RS09265 WP 001085462.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 194 SPR RS08825 WP 001085462.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 159 SP RS09750 WP 001085462.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 499 SM12261 RS08315 WP 078228268.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 527 SMSK321 RS11065 WP 001085454.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 408 SMU RS09530 WP 002262392.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 1111887 SPYH293 RS07960 WP 002992179.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 453 Spy49 1753c ACI62003.1	VVV	D	S	V	A	A	L	V	P	R	A	E	I	D	G	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	.	232				
NTDB id 625 LCA RS02525 WP 011374196.1	L	V	V	D	S	V	A	A	L	V	P	R	A	E	I	E	G	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	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	.	219	
NTDB id 115 BSU 16940 NP 389576.2	VVV	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	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	.	217		
NTDB id 1313 DR RS12030 WP 010888966.1	VVV	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	I	G	V	M	.	Y	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	231		
NTDB id 1245 Cj1673c YP 002345041.1	I	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	I	R	M	K	I	G	A	M	G	Y	G	T	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	219	
NTDB id 1211 C694 RS00795 WP 000963128.1	VVV	D	S	V	A	A	L	T	P	K	A	E	I	D	G	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	T	L	I	F	I	N	Q	I	R	M	K	I	G	M	G	Y	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	221				
NTDB id 1214 NCTC11637 00359 SQJ03206.1	VVV	D	S	V	A	A	L	T	P	K	A	E	I	D	G	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	T	L	I	F	I	N	Q	I	R	M	K	I	G	M	G	Y	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	221				
NTDB id 1334 RAO C RS04870 WP 004918236.1	VVV	D	S	V	A	A	L	T	P	K	A	E	I	D	G	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	P	G	G	R	A	L	K	F	Y	A	.	227			
NTDB id 1389 A4U84 RS07560 WP 021112712.1	I	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	I	R	M	K	I	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	235
NTDB id 1130 NGFG RS03960 WP 003688695.1	VVV	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	I	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	S	.	219		
NTDB id 1124 NGFG RS03960 WP 003688695.1	VVV	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	I	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	S	.	219		
NTDB id 1123 OK783 RS03845 WP 003688695.1	VVV	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	I	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	S	.	219		
NTDB id 1427 RS RS02760 WP 011000510.1	I	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	R	T	N	C	L	V	I	F	I	N	Q	I	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	227
NTDB id 1165 A1552VC RS01565 WP 000344154.1	I	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	I	R	M	K	I	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	218
NTDB id 1142 GTF74 RS11550 WP 000344154.1	I	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	I	R	M	K	I	G	V	M	.	F	G	N	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	218
NTDB id 1022 ACIAD RS06390 WP 004925639.1	I	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	I	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	P	G	G	R	A	L	K	F	Y	A	.	218
NTDB id 1074 ABD1 RS10195 WP 000344167.1	I	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	I	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	P	G	G	R	A	L	K	F	Y	A	.	218
NTDB id 1205 PSJM300 05545 AFN77183.1	I	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	I	T	G	N	I	K	N	A	N	C	L	V	I	F	I	N	Q	I	R	M	K	I	G	V	M	.	F	G	S	P	E	T	T	P	G	G	R	A	L	K	F	Y	A	.	

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NTDB id 600	KW2	RS01765	WP 011675413.1	DEKIGQQA	AKAKNYL	KEHQDV	FDEID	HKVRAA	HGL	LD	DDSEVA	ETEEETT	ASKTKAKAK	KEEKAV	ETEEIELE	LED	387		
NTDB id 269	KZH43	RS08665	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	ID	GEEVSE	QDTENK	KDE...	PKKEEA	..VNEEV	PLDLGDE	LEIE	385		
NTDB id 228	SPD	RS09265	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	ID	GEEVSE	QDTENK	KDE...	PKKEEA	..VNEEV	PLDLGDE	LEIE	385		
NTDB id 194	SPR	RS08825	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	ID	GEEVSE	QDTENK	KDE...	PKKEEA	..VNEEV	PLDLGDE	LEIE	385		
NTDB id 159	SP	RS09750	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHPFI	FDEID	KQVRSK	FGL	ID	GEEVSE	QDTENK	KDE...	PKKEEA	..VNEEV	PLDLGDE	LEIE	385		
NTDB id 499	SM12261	RS08315	WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPEI	FDEID	HQVVRV	QFGL	ID	GEEIAES	...KKDE	...AAQVDS	..VNEEV	TLDLGDE	LEIE	381			
NTDB id 527	SMSK321	RS11065	WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPEI	FVAEID	HQVVRV	QFGL	ID	GEEAAES	...KKDE	...VAQVDS	..VNEEV	TLDLGDE	LEIE	381			
NTDB id 408	SMU	RS09530	WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPEI	FDDI	HKVVRV	QYGL	IE	EDNTEE	KQSSKEK	.....ETDEK	..ADKNL	VLELDDT	IELE	382		
NTDB id 1111887	SPYH293	RS07960	WP 002992179.1	GEKIGQGS	ENAKRYL	ADHPQI	FDEID	RKVRVK	FGL	LE	ESEEE	SAMAVASE	.....E	.....TDDL	LALDLN	GIEIE	377	
NTDB id 453	Spy49	1753c	ACI62003.1	GEKIGQGS	ENAKRYL	ADHPQI	FDEID	RKVRVK	FGL	LE	ESEEE	SAMAVASE	.....E	.....TDDL	LALDLN	GIEIE	377	
NTDB id 625	LCA	RS02525	WP 011374196.1	SERIGQGR	ENAKNYL	ADHEDV	EDVRL	KVRAAY	GIS	SDVPEE	DLPTTE	DE.QI	..NILP	DDST	.....EE	.....	355	
NTDB id 115	BSU	16940	NP 389576.2	EERLIGQ	GR	ENAKQFL	KENKDI	MLMI	IQEQI	REHYC	LD	NNGVV	QQQAEET	QEEL	..EFE	..E	348		
NTDB id 1313	DR	RS12030	WP 010888966.1	DERIGQG	KEKTIAY	IAERP	EME	QEI	RD	RV	MAA	IRAGN	AGEAP	ALAP	AAPAA	PEAAE	..A	363	
NTDB id 1245	Cj1673c	YP 002345041.1		DKKLGQ	GR	ENSKAFL	KENPEI	ADEIT	KA	IQNSM	TEGMI	...SG	SEDD	..EGE	..E	.....	343		
NTDB id 1211	C694	RS00795	WP 000963128.1	DKKLGQ	GR	ENAKALL	KEDKAL	ADEIT	LKIK	ESIG	SNEEI	...MPL	PDE..	PLE..	EME	.....	347		
NTDB id 1214	NCTC11637	00359	SQJ03206.1	DKKLGQ	GR	ENAKALL	KEDKAL	ADEIT	LKIK	ESIG	SNEEI	...MPL	PDE..	PLE..	EME	.....	347		
NTDB id 1334	RAOC	RS04870	WP 004918236.1	DTKLGQ	GRD	TVKEL	IKDNPEI	AEEI	EAKI	REKL	QAK	.....	.....	.....	.....	.....	343
NTDB id 1389	A4U84	RS07560	WP 021112712.1	GTKIGQ	GKNN	AVKWL	KENPEI	ADKLE	QEI	RNTL	ASNP	NS...VL	KATAS	DSND	..ESD	VEEF	SEEL	372	
NTDB id 1130	NGFG	RS03960	WP 003688695.1	GAKIGQ	GKDN	VVRVWL	KENPEI	SDEID	AKI	RALN	GVEM	HI...TE	GTQDE	TDGE	..RPEE	348		
NTDB id 1124	NGFG	RS03960	WP 003688695.1	GAKIGQ	GKDN	VVRVWL	KENPEI	SDEID	AKI	RALN	GVEM	HI...TE	GTQDE	TDGE	..RPEE	348		
NTDB id 1123	OK783	RS03845	WP 003688695.1	GAKIGQ	GKDN	VVRVWL	KENPEI	SDEID	AKI	RALN	GVEM	HI...TE	GTQDE	TDGE	..RPEE	348		
NTDB id 1427	RS	RS02760	WP 011000510.1	GERIGQ	GRDNC	REFL	REN	AEL	AREI	ENKVR	REHL	CVTP	MG...AV	TLA	..EEVEE	..D	352		
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	GDKIGQ	GKAN	ACKYL	KENPEI	AKTLD	KKL	REML	LN	PENM...Q	LIAET	SSAAD	..DVE	FGAV	PEEF	354	
NTDB id 1142	GTF74	RS11550	WP 000344154.1	GDKIGQ	GKAN	ACKYL	KENPEI	AKTLD	KKL	REML	LN	PENM...Q	LIAET	SSAAD	..DVE	FGAV	PEEF	354	
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	GNKIGQ	GKNN	VIRY	LEEN	QI	STEI	EAVI	REQL	LT	KASD...Q	TAA	..HDETEE	..EPD	LL..ES	349	
NTDB id 1074	ABD1	RS10195	WP 000344167.1	GNKIGQ	GKNN	VIRY	FEENN	QIAE	EI	ERNI	REQL	LT	TGTN...G	AVQ	..I	..EDEE	..EPD	LL..LES	349
NTDB id 1205	PSJM300	05545	AFN77183.1	GSKIGQ	GKAN	AKYL	LEEN	PEI	GQEI	EQI	RAKLL	V	TSAN...T	KATP	VAED	LA..D	DADI	347	
consensus				**!!!* ** * ** * ** * ** *																

logo

		LEE	
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
NTDB id 408	SMU RS09530 WP 002262392.1	D..	383
NTDB id 1111887	SPYH293 RS07960 WP 002992179.1	D..	378
NTDB id 453	Spy49 1753c ACI62003.1	D..	378
NTDB id 625	LCA RS02525 WP 011374196.1	...	355
NTDB id 115	BSU 16940 NP 389576.2	...	348
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 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