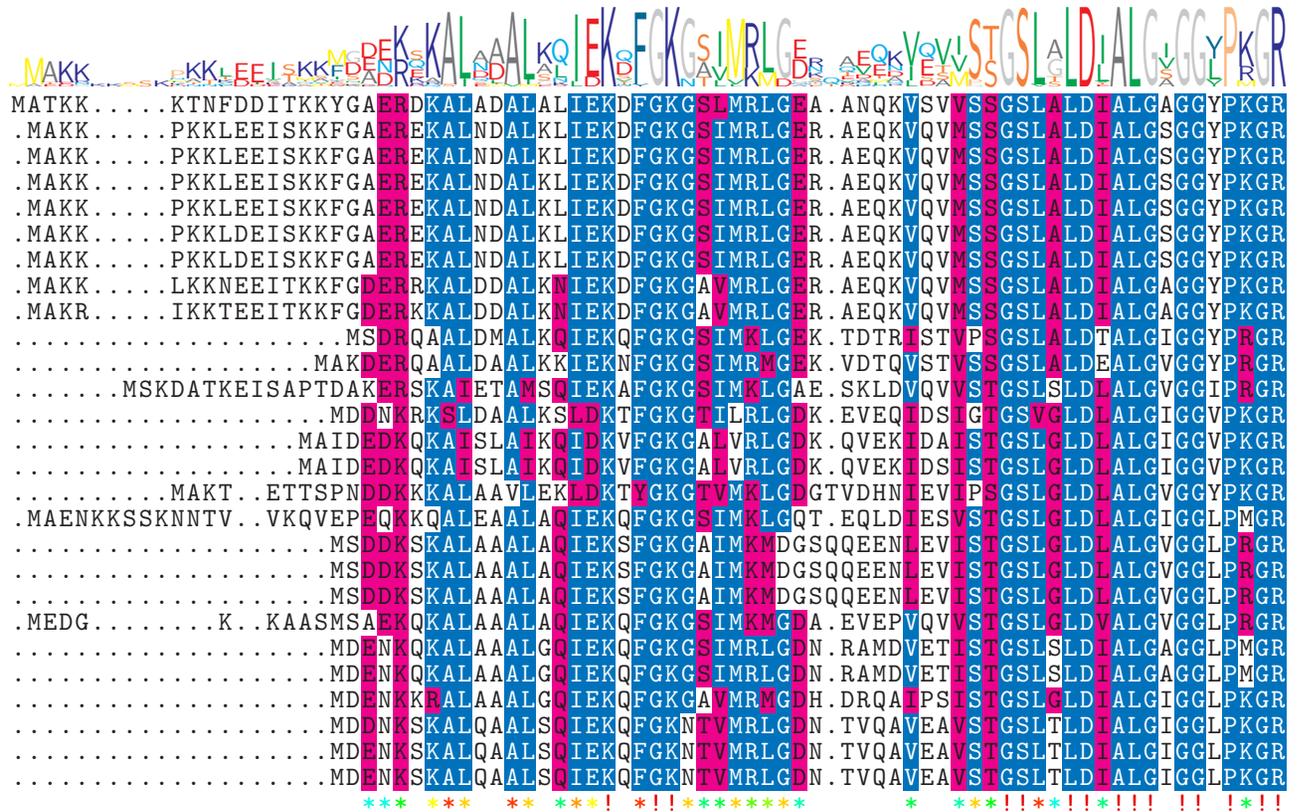


logo

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 1214 NCTC11637 00359 SQJ03206.1  
 NTDB id 1211 C694 RS00795 WP 000963128.1  
 NTDB id 1334 RAOC 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 1205 PSJM300 05545 AFN77183.1  
 NTDB id 1022 ACIAD RS06390 WP 004925639.1  
 NTDB id 177113 IEC338SC RS12795 WP 063098994.1  
 NTDB id 1074 ABD1 RS10195 WP 000344167.1

consensus



logo



NTDB id 600 KW2 RS01765 WP 011675413.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	A	V	Q	K	E	G	G	I	A	A	F	I	D	A	E	N	A	L	D	P	E	Y	A	K	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	Y	G	E	Q	G	L	I	A	E	K	L	I	T	S	G	A	V	D	L	
NTDB id 269 KZH43 RS08665 WP 001085462.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	E	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
NTDB id 228 SPD RS09265 WP 001085462.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	E	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
NTDB id 194 SPR RS08825 WP 001085462.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	E	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
NTDB id 159 SP RS09750 WP 001085462.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	E	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
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NTDB id 499 SM12261 RS08315 WP 078228268.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	E	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
NTDB id 453 Spy49 1753c ACI62003.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	E	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	A	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
NTDB id 408 SMU RS09530 WP 002262392.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	Q	A	Q	K	D	G	G	I	A	A	F	I	D	A	E	H	A	L	D	P	A	Y	A	A	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	S	G	E	Q	G	L	E	I	A	G	K	L	I	D	S	G	A	V	D	L
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NTDB id 625 LCA RS02525 WP 011374196.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	V	A	L	H	A	V	A	E	V	Q	Q	G	G	T	A	A	Y	I	D	A	E	N	A	M	D	P	K	Y	A	T	A	L	G	V	N	I	D	D	L	L	S	Q	P	D	T	G	E	Q	G	L	E	I	A	D	A	L	V	S	G	A	V	D	L		
NTDB id 1313 DR RS12030 WP 010888966.1	I	T	E	I	Y	G	P	E	S	G	K	T	T	L	A	L	A	I	V	A	Q	A	Q	K	A	G	T	C	A	F	I	D	A	E	H	A	L	D	P	V	Y	A	R	A	L	G	V	N	I	D	E	L	L	S	Q	P	D	N	G	E	Q	A	L	E	I	M	E	L	L	V	R	S	G	A	T	D	V		
NTDB id 1245 Cj1673c YP 002345041.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	L	T	L	H	I	I	A	E	C	Q	K	A	G	G	V	C	A	F	I	D	A	E	H	A	L	D	V	K	Y	A	K	N	L	G	V	N	I	D	D	L	Y	S	Q	P	D	F	G	E	Q	A	L	E	I	V	E	T	T	A	R	S	G	A	V	D	L
NTDB id 1214 NCTC11637 00359 SQJ03206.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	L	S	L	H	I	I	A	E	C	Q	K	N	G	G	V	C	A	F	I	D	A	E	H	A	L	D	V	H	Y	A	K	R	L	G	V	D	T	E	N	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	L	E	T	I	T	R	S	G	I	D	L	
NTDB id 1211 C694 RS00795 WP 000963128.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	L	S	L	H	I	I	A	E	C	Q	K	N	G	G	V	C	A	F	I	D	A	E	H	A	L	D	V	H	Y	A	K	R	L	G	V	D	T	E	N	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	L	E	T	I	T	R	S	G	I	D	L	
NTDB id 1334 RAOC RS04870 WP 004918236.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	L	T	L	H	A	I	A	E	A	Q	K	V	G	G	T	A	F	I	D	A	E	H	A	F	D	M	H	Y	A	E	K	L	G	I	N	L	E	L	I	V	S	Q	P	D	N	G	E	Q	A	L	E	I	A	D	S	L	T	R	S	G	V	D	L		
NTDB id 1389 A4U84 RS07560 WP 021112712.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	L	T	S	L	I	A	Q	A	Q	K	G	N	K	T	C	A	F	I	D	A	E	H	A	L	D	P	V	Y	A	R	N	L	G	V	N	I	D	E	L	L	S	Q	P	D	N	G	E	Q	A	L	E	I	C	D	A	L	V	R	S	G	A	V	D	L	
NTDB id 1130 NGFG RS03960 WP 003688695.1	I	V	E	I	F	G	P	E	S	S	G	K	T	T	L	C	L	E	A	V	A	Q	C	Q	K	N	G	G	V	C	A	F	V	D	A	E	H	A	F	D	P	V	Y	A	R	K	L	G	V	K	V	E	E	L	Y	L	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	T	L	V	R	S	G	I	D	M
NTDB id 1124 NGFG RS03960 WP 003688695.1	I	V	E	I	F	G	P	E	S	S	G	K	T	T	L	C	L	E	A	V	A	Q	C	Q	K	N	G	G	V	C	A	F	V	D	A	E	H	A	F	D	P	V	Y	A	R	K	L	G	V	K	V	E	E	L	Y	L	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	T	L	V	R	S	G	I	D	M
NTDB id 1123 OK783 RS03845 WP 003688695.1	I	V	E	I	F	G	P	E	S	S	G	K	T	T	L	C	L	E	A	V	A	Q	C	Q	K	N	G	G	V	C	A	F	V	D	A	E	H	A	F	D	P	V	Y	A	R	K	L	G	V	K	V	E	E	L	Y	L	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	T	L	V	R	S	G	I	D	M
NTDB id 1427 RS RS02760 WP 011000510.1	V	V	E	I	Y	G	P	E	S	S	G	K	T	T	L	T	L	Q	V	V	A	E	M	Q	K	L	G	G	T	C	A	F	I	D	A	E	H	A	L	D	V	T	Y	A	D	K	L	G	V	K	V	P	D	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	A	D	A	L	V	R	S	G	S	V	D	L
NTDB id 1165 A1552VC RS01565 WP 000344154.1	I	V	E	I	F	G	P	E	S	S	G	K	T	T	L	T	L	E	L	I	A	A	A	Q	R	E	C	K	T	C	A	F	I	D	A	E	H	A	L	D	P	V	Y	A	K	L	G	V	N	I	D	E	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	A	L	A	R	S	G	A	V	D	L	
NTDB id 1142 GTF74 RS11550 WP 000344154.1	I	V	E	I	F	G	P	E	S	S	G	K	T	T	L	T	L	E	L	I	A	A	A	Q	R	E	C	K	T	C	A	F	I	D	A	E	H	A	L	D	P	V	Y	A	K	L	G	V	N	I	D	E	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	C	D	A	L	A	R	S	G	A	V	D	L	
NTDB id 1205 PSJM300 05545 AFN77183.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	L	T	L	S	V	I	A	A	A	Q	R	M	G	S	T	C	A	F	V	D	A	E	H	A	L	D	P	Y	A	G	K	L	G	V	N	I	D	E	L	L	S	Q	P	D	T	G	E	Q	A	L	E	I	T	D	M	L	V	R	S	N	A	V	D	L	
NTDB id 1022 ACIAD RS06390 WP 004925639.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	M	T	L	Q	A	I	A	Q	C	Q	K	A	G	G	T	C	A	F	I	D	A	E	H	A	L	D	P	Q	Y	A	R	K	L	G	V	D	I	D	N	L	L	S	Q	P	D	H	G	E	Q	A	L	E	I	A	D	M	L	V	R	S	G	A	T	D	L
NTDB id 177113 IEC338SC RS12795 WP 063098994.1	I	V	E	I	Y	G	P	E	S	S	G	K	T	T	M	T	L	Q	A	I	A	Q	C	Q	K	A	G	G	T	C	A	F	I	D	A	E	H	A	L	D	P	Q	Y	A	R	K	L	G	V	D	I	D	N	L	L	S	Q	P	D	N	G	E	Q	A	L	E	I	A	D	M	L	V	R	S	G	A	T	D	L
NTDB id 1074 ABD1 RS10195 WP 000344167.1	I	I	E	I	Y	G	P	E	S	S	G	K	T	T	M	T	L	Q	A	I	A	Q	C	Q	K	S	G	G	T	C	A	F	I	D	A	E	H	A	L	D	P	Q	Y	A	R	K	L	G	V	D	I	D	N	L	L	S	Q	P	D	N	G	E	Q	A	L	E	I	A	D	M	L	V	R	S	G	A	T	D	L
consensus	*	*	!																																																																												





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NTDB id 600	KW2	RS01765	WP 011675413.1	DEKIGQQA	ENAKKYL	KEHQDV	FDEID	HKVRAAH	GLDD	SEVAETEEETT	ASKTKAKAKKEEKAVETEEIELELED	387	
NTDB id 269	KZH43	RS08665	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHP	EIFDEID	KQVRSKF	GLIDG	EEVSEQDTENKKDE	...PKKEEA..VNEEVPLDLGDELEIE	385	
NTDB id 228	SPD	RS09265	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHP	EIFDEID	KQVRSKF	GLIDG	EEVSEQDTENKKDE	...PKKEEA..VNEEVPLDLGDELEIE	385	
NTDB id 194	SPR	RS08825	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHP	EIFDEID	KQVRSKF	GLIDG	EEVSEQDTENKKDE	...PKKEEA..VNEEVPLDLGDELEIE	385	
NTDB id 159	SP	RS09750	WP 001085462.1	DEKIGQGS	ENAKKYL	AEHP	EIFDEID	KQVRSKF	GLIDG	EEVSEQDTENKKDE	...PKKEEA..VNEEVPLDLGDELEIE	385	
NTDB id 527	SMSK321	RS11065	WP 001085454.1	DEKIGQGS	ENAKKYL	ADNPE	IFDEID	HQVVRVQ	FGLIDG	EEAAE...SKKDE...VAQVDS..VNEEVTLDLGDELEIE	381		
NTDB id 499	SM12261	RS08315	WP 078228268.1	DEKIGQGS	ENAKKYL	ADNPE	IFDEID	HQVVRVQ	FGLIDG	EEIAE...SKKDE...AAQVDS..VNEEVTLDLGDELEIE	381		
NTDB id 453	Spy49	1753c	ACI62003.1	GEKIGQGS	ENAKRYL	ADHP	QLFDEI	DRKVRVK	FGLEE	SESEESAMAVASE.....E.....TDDLALDLNNGIEIE	377		
NTDB id 408	SMU	RS09530	WP 002262392.1	GEKIGQGS	ENAKKFL	ADNPE	IFDDI	HKVVRVQ	YGLIEE	DNTEEKQSSKEK.....ETDEK..ADKNLVLELDDTIELE	382		
NTDB id 115	BSU	16940	NP 389576.2	EERLGG	RENAK	QFLKEN	KDMLMI	QEQIRE	HYGLDN	NGVVQQQAEETQEEL.EFE.E.....	348		
NTDB id 625	LCA	RS02525	WP 011374196.1	SERIGQGS	RENAKNYL	ADHED	VEDEV	RLKVR	AAAYGLSD	VPEEDLPTTEDE.QI.NILPDDST.....EE.....	355		
NTDB id 1313	DR	RS12030	WP 010888966.1	DERIGQCK	EKTIA	YTAER	PEMEQE	IRDRV	MAAIR	RAGNAGEAPALAPAPAAPEAA..EA.....	363		
NTDB id 1245	Cj1673c	YP 002345041.1		DKKLG	QGRENS	KAFL	KENPEI	ADEIT	KATQ	NSMGT	EGMIS....GSEDDEGEE.....	343	
NTDB id 1214	NCTC11637	00359	SQJ03206.1	DKKLG	QGRENA	KALL	KEDK	ALADEI	TLKIK	ESIGS	NEEIM....PLPDEPLEE..ME.....	347	
NTDB id 1211	C694	RS00795	WP 000963128.1	DKKLG	QGRENA	KALL	KEDK	ALADEI	TLKIK	ESIGS	NEEIM....PLPDEPLEE..ME.....	347	
NTDB id 1334	RAOC	RS04870	WP 004918236.1	DTKLG	QGRD	TVKEL	IKDN	PELAE	LEAKI	REKLQAK.....	343		
NTDB id 1389	A4U84	RS07560	WP 021112712.1	GTKIG	QCKN	NAV	WVKEN	PEIAD	KLEQE	IRNTLA	SNPNSV....LKATASDSN..DESDVEEFSEEL.....	372	
NTDB id 1130	NGFG	RS03960	WP 003688695.1	GAKIG	QCKDN	VRV	WLKEN	PEIS	DEID	AKIRAL	NGVEMHIT....EG.....T..QDET	DGERPEE.....	348
NTDB id 1124	NGFG	RS03960	WP 003688695.1	GAKIG	QCKDN	VRV	WLKEN	PEIS	DEID	AKIRAL	NGVEMHIT....EG.....T..QDET	DGERPEE.....	348
NTDB id 1123	OK783	RS03845	WP 003688695.1	GAKIG	QCKDN	VRV	WLKEN	PEIS	DEID	AKIRAL	NGVEMHIT....EG.....T..QDET	DGERPEE.....	348
NTDB id 1427	RS	RS02760	WP 011000510.1	GERI	GGGRD	NCRE	FLRENA	EELARE	EENK	VREHL	GVTPMGA....VTLAE.EVE..ED.....	352	
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	GDKIG	QCKA	NACK	YLKEN	PEIA	KTL	DKKL	REMLLN	PENMQ....LIAETSSAA..DDVEFGAVPEEF.....	354
NTDB id 1142	GTF74	RS11550	WP 000344154.1	GDKIG	QCKA	NACK	YLKEN	PEIA	KTL	DKKL	REMLLN	PENMQ....LIAETSSAA..DDVEFGAVPEEF.....	354
NTDB id 1205	PSJM300	05545	AFN77183.1	GSKIG	QCKA	NAK	YLEEN	PEI	GQEI	EQQI	RAKLL	VTSANT....KATPVAEDL..ADA...DI.....	347
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	GNKIG	QCKN	NVIR	YLEEN	PQI	STEI	EAVI	REQLLT	KASDQ....TAAHD.ETE..EEP...DLLES.....	349
NTDB id 177113	IEC338SC	RS12795	WP 063098994.1	GNKIG	QCKN	NVIR	HFEEN	PQ	MAGE	EIKI	IREQLL	TTGTNG....AVQVE.DEE..ED...LLLES.....	348
NTDB id 1074	ABD1	RS10195	WP 000344167.1	GNKIG	QCKN	NVIR	YFEEN	PQI	AEI	ERNI	REQLL	TTGTNG....AVQIE.DEE..EPD...LLLES.....	349

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 527 SMSK321 RS11065 WP 001085454.1  IEE 384
NTDB id 499 SM12261 RS08315 WP 078228268.1  IEE 384
NTDB id 453 Spy49 1753c ACI62003.1        D.. 378
NTDB id 408 SMU RS09530 WP 002262392.1    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 1214 NCTC11637 00359 SQJ03206.1   ... 347
NTDB id 1211 C694 RS00795 WP 000963128.1   ... 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 1205 PSJM300 05545 AFN77183.1     ... 347
NTDB id 1022 ACIAD RS06390 WP 004925639.1  ... 349
NTDB id 177113 IEC338SC RS12795 WP 063098994.1 ... 348
NTDB id 1074 ABD1 RS10195 WP 000344167.1   ... 349
consensus
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ⓧ non conserved  
ⓧ similar  
ⓧ ≥ 50% conserved