

NTDB	id	1307	DR	RS10055	WP	010888596.1	HLV	M	G	T	L	H	T	N	S	A	P	E	S	I	D	R	I	V	D	V	F	P	E	E	Q	Q	E	Q	I	R	V	Q	L	A	N	N	L	V	A	V	M	T	Q	Q	L	L	P	R	A	D	...	Q	Q	G	R	V	L	A	Y	E	I	L	L	A	N	P	A	V	R	A		296	
NTDB	id	21840	PCC7120	DELTA	RS14030	WP	010996599.1	HLV	F	G	T	L	H	T	S	S	A	S	Q	T	V	D	R	I	D	V	F	P	H	E	K	Q	T	Q	V	R	V	Q	L	S	N	S	L	V	A	V	F	S	Q	T	L	V	P	K	N	K	P	G	E	Y	G	R	V	M	A	Q	E	I	M	I	T	P	A	I	S	N		298	
NTDB	id	1116	NGFG	RS10615	WP	003690200.1	HLV	F	G	T	L	H	T	T	G	A	A	K	T	V	D	R	I	V	D	V	F	P	A	G	E	K	E	M	V	R	S	M	L	S	E	S	L	T	A	V	I	S	Q	N	L	L	K	T	H	D	...	G	N	G	R	V	A	S	H	E	I	L	I	A	N	P	A	V	R	N		292	
NTDB	id	1086	NMV	RS00245	WP	002218487.1	HLV	F	G	T	L	H	T	T	G	A	A	K	T	V	D	R	I	V	D	V	F	P	A	G	E	K	E	M	V	R	S	M	L	S	E	S	L	T	A	V	I	S	Q	N	L	L	K	T	H	D	...	G	N	G	R	V	A	S	H	E	I	L	I	A	N	P	A	V	R	N		292	
NTDB	id	1185	GTF74	RS11940	WP	000350195.1	HLV	F	G	T	L	H	T	T	S	S	A	A	K	T	I	D	R	I	D	V	F	P	G	S	D	K	D	M	V	R	S	M	L	S	E	S	L	R	A	V	I	A	Q	K	L	L	K	R	...	V	...	G	G	G	R	V	A	C	H	E	I	M	L	A	T	P	A	I	R	N		291	
NTDB	id	1176	A1552VC	RS01160	WP	000350195.1	HLV	F	G	T	L	H	T	T	S	S	A	A	K	T	I	D	R	I	D	V	F	P	G	S	D	K	D	M	V	R	S	M	L	S	E	S	L	R	A	V	I	A	Q	K	L	L	K	R	...	V	...	G	G	G	R	V	A	C	H	E	I	M	L	A	T	P	A	I	R	N		291	
NTDB	id	1283	ACE17W	RS02630	WP	010947729.1	HLV	F	G	T	L	H	T	N	S	A	T	K	T	I	N	R	I	D	V	F	P	A	E	E	K	S	M	V	R	S	M	L	S	E	S	L	Q	A	V	V	A	Q	S	L	L	K	K	...	N	...	K	G	G	R	V	A	A	L	E	I	M	M	C	T	G	A	I	R	N		291		
NTDB	id	1259	GC085	RS10305	WP	010947729.1	HLV	F	G	T	L	H	T	N	S	A	T	K	T	I	N	R	I	D	V	F	P	A	E	E	K	S	M	V	R	S	M	L	S	E	S	L	Q	A	V	V	A	Q	S	L	L	K	K	...	N	...	K	G	G	R	V	A	A	L	E	I	M	M	C	T	G	A	I	R	N		291		
NTDB	id	1202	PSJM300	01600	AFN	76400.1	HLV	F	G	T	L	H	T	T	S	S	A	A	K	T	I	D	R	I	V	D	V	F	P	A	E	E	K	S	M	V	R	S	M	L	S	E	S	L	Q	A	V	V	A	Q	S	L	L	K	K	...	V	...	G	G	G	R	V	A	A	H	E	I	M	I	G	T	P	A	I	R	N		291
NTDB	id	1194	PAKAF	RS01995	WP	003084552.1	HLV	F	G	T	L	H	T	T	S	S	A	A	K	T	I	D	R	I	V	D																																																					

NTDB	id	1307	DR	RS10055	WP	01088596.1	LIREGKTFQITSVMQTGAREGMVTMDAYLAGLFRRHLLITYDKGLERAIDPKEFARLANDASAGLGGASMTPAAPP	371
NTDB	id	21840	PCC7120DELTA	RS14030	WP	010996599.1	LIREGKTSQIYSAIQTGCKLGMQTLKVLADYYKSGTISFEAAMSKTSPKDEIQRLLIGPSA.....PP	361
NTDB	id	1116	NGFG	RS10615	WP	003690200.1	LIRENKITQINSVLQTCQASGMQTMQDLSLSLVRQGLIAPEAAARRRAQNSSESMSF.....	347
NTDB	id	1086	NMV	RS00245	WP	002218487.1	LIRENKITQINSVLQTCQASGMQTMQDLSLSLVRQGLIAPEVAARRRAQNSSESMSF.....	347
NTDB	id	1185	GTF74	RS11940	WP	000350195.1	LIREDKVAQMYSIIQTGAAGGMQTEQNAKQLIARGVVDAAQEVQSKIELDLKAF.....	345
NTDB	id	1176	A1552VC	RS01160	WP	000350195.1	LIREDKVAQMYSIIQTGAAGGMQTEQNAKQLIARGVVDAAQEVQSKIELDLKAF.....	345
NTDB	id	1283	ACE17W	RS02630	WP	010947729.1	LIREDKIAQMYSIIQTGAAGGMQTLQHLTELNVNKNIIISKHTAHEAALNK.SLF.....	344
NTDB	id	1259	GC085	RS10305	WP	010947729.1	LIREDKIAQMYSIIQTGAAGGMQTLQHLTELNVNKNIIISKHTAHEAALNK.SLF.....	344
NTDB	id	1202	PSJM300	01600	AFN	76400.1	LIREDKVAQMYSIIQTGCSLGMQTLDSCLKGLLAKGLISRDSAKEKAKQP.ENF.....	344
NTDB	id	1194	PAKAF	RS01995	WP	003084552.1	LIREDKVAQMYSIIQTGCSLGMQTLDMCLKGLVAKGLISRRENAKEKAKIP.ENF.....	344
NTDB	id	1020	ACIAD	RS04210	WP	011182164.1	LIREGKVAQMYSIIQTGATHGMTTLQDQSLKQLLAKGIIINLPTARAVAKSP.ESF.....	344
NTDB	id	1060	ABD1	RS04380	WP	000355489.1	LIRENKVAQMYSIIQTGANHGMTTLQDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
NTDB	id	1040	HON27	RS13360	WP	000355489.1	LIRENKVAQMYSIIQTGANHGMTTLQDQSLKGLVARGVISPQTARTAAKQP.ESFL.....	345
NTDB	id	1081	FDQ49	RS05335	WP	006581387.1	LIRENKVAQMYSIIQTGANHGMTTLQDQSLKGLVSRGVISPQTARTAAKQP.ESFL.....	345
consensus							|||||**||**||*||*|||*|||***|**|*|||***|**|*|||	

NTDB id 1307 DR RS10055 WP 010888596.1	VPAYNSASSSSSTGRGGDFGRGAAAAPATPAAPAAGRSEPGRAGGFGRR	418
NTDB id 21840 PCC7120DELTA RS14030 WP 010996599.1	PGAKAGAVKAH.....	372
NTDB id 1116 NGFG RS10615 WP 003690200.1	.....	347
NTDB id 1086 NMV RS00245 WP 002218487.1	.....	347
NTDB id 1185 GTF74 RS11940 WP 000350195.1	.....	345
NTDB id 1176 A1552VC RS01160 WP 000350195.1	.....	345
NTDB id 1283 ACE17W RS02630 WP 010947729.1	.....	344
NTDB id 1259 GCO85 RS10305 WP 010947729.1	.....	344
NTDB id 1202 PSJM300 O1600 AFN76400.1	.....	344
NTDB id 1194 PAKAF RS01995 WP 003084552.1	.....	344
NTDB id 1020 ACIAD RS04210 WP 011182164.1	.....	344
NTDB id 1060 ABD1 RS04380 WP 000355489.1	.....	345
NTDB id 1040 HON27 RS13360 WP 000355489.1	.....	345
NTDB id 1081 FDQ49 RS05335 WP 006581387.1	.....	345
consensus		

 non conserved
 similar
 $\geq 50\%$ conserved