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NTDB id 600 KW2 RS01765 WP 011675413.1	MATKK....KTNFDDITKKYGAERDKALADALALIEKD FGKGSIMRLGER.ANQKVSVVSSGSLALDIALGAGGYPKGR	74
NTDB id 269 KZH43 RS08665 WP 001085462.1	.MAKK....PKKLEEISKKFGEERDKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 228 SPD RS09265 WP 001085462.1	.MAKK....PKKLEEISKKFGEERDKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 194 SPR RS08825 WP 001085462.1	.MAKK....PKKLEEISKKFGEERDKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 159 SP RS09750 WP 001085462.1	.MAKK....PKKLEEISKKFGEERDKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 499 SM12261 RS08315 WP 078228268.1	.MAKK....PKKLDEISKKFGEERDKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 527 SMSK321 RS11065 WP 001085454.1	.MAKK....PKKLDEISKKFGEERDKALNDALKLIEKD FGKGSIMRLGER.AEQKVQVMSSGSLALDIALGSGGYPKGR	73
NTDB id 453 Spy49 1753c ACI62003.1	.MAKK....LKKNEEITKKFGEERDKALDDALKNIEKD FGKGVAVMLRGER.AEQKVQVMSSGSLALDIALGAGGYPKGR	73
NTDB id 408 SMU RS09530 WP 002262392.1	.MAKR....IKKTEEITKKFGEERDKALDDALKNIEKD FGKGVAVMLRGER.AEQKVQVMSSGSLALDIALGAGGYPKGR	73
NTDB id 115 BSU 16940 NP 389576.2	.....MSDRQAALDMALKQIEKQFGKGSIMKLG EK.TDTRISTVPSGSLALDIALGIGGYPRGR	58
NTDB id 625 LCA RS02525 WP 011374196.1	.....MAKDERQAALDAALKKIEKNFGKGSIMRMGEK.VDTQVSTVSSGSLALDEALGVGGYPRGR	60
NTDB id 1313 DR RS12030 WP 010888966.1	.....MSKDATKEISAPTD AKERSKATETAMSQIEKAFGKGSIMKLGAE.SKLDVQVVSTGSLSLDLALGVGGIPRGR	72
NTDB id 1334 RAOC RS04870 WP 004918236.1	.....MAKT..ETTSPPDDKKKALAAVLEKLDKTYGKGTVMKLG DGTVDHNIIEVIPSGSLGLDLALGVGGYPKGR	68
NTDB id 1245 Cj1673c YP 002345041.1	.....MDNKRKSLDAALKSLDKTFGKGTILRLGDK.EVEQIDSIGTGSVGLDLALGIGGVPKGR	59
NTDB id 1211 C694 RS00795 WP 000963128.1	.....MAIDEDKQKATSLAIKQIDKVFVGKALVRLGDK.QVEKIDSISTGSLGLDLALGIGGVPKGR	61
NTDB id 1214 NCTC11637 00359 SQJ03206.1	.....MAIDEDKQKATSLAIKQIDKVFVGKALVRLGDK.QVEKIDAISTGSLGLDLALGIGGVPKGR	61
NTDB id 1389 A4U84 RS07560 WP 021112712.1	.MAENKKSNNNTV.VKQVEPEQKKQALEAALAQIEKQFGKGSIMKLGQT.EQLDIESVSTGSLGLDLALGIGGLPMGR	76
NTDB id 1130 NGFG RS03960 WP 003688695.1	.....MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQEEENLEVISTGSLGLDLALGVGGLPRGR	60
NTDB id 1124 NGFG RS03960 WP 003688695.1	.....MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQEEENLEVISTGSLGLDLALGVGGLPRGR	60
NTDB id 1123 OK783 RS03845 WP 003688695.1	.....MSDDKSKALAAALAQIEKSFGKGAIMKMDGSQEEENLEVISTGSLGLDLALGVGGLPRGR	60
NTDB id 1427 RS RS02760 WP 011000510.1	.MEDG.....K..KAASMSAEKQKALAAALAQIEKQFGKGSIMKMGDA.EVEPVQVVSTGSLGLDVALGVGGLPRGR	68
NTDB id 1022 ACIAD RS06390 WP 004925639.1	.....MDDNKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR	59
NTDB id 1074 ABD1 RS10195 WP 000344167.1	.....MDENKSKALQAALSQIEKQFGKNTVMRLGDN.TVQAVEAVSTGSLTLDIALGIGGLPKGR	59
NTDB id 1205 PSJM300 05545 AFN77183.1	.....MDENKRRALAAALGQIEKQFGKGVAVRMGDH.DRQAIPSIISTGSLGLDIALGIGGLPKGR	59
NTDB id 411778 GSF13 RS21645 WP 095729681.1	.....MNDNKQKALDAALSQIEKQFGKGSIMKLG EN.KALDIEAISTGSLGLDIALGIGGLPTGR	59
NTDB id 1165 A1552VC RS01565 WP 000344154.1	.....MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR	59
NTDB id 1142 GTF74 RS11550 WP 000344154.1	.....MDENKQKALAAALGQIEKQFGKGSIMRLGDN.RAMDVETISTGSLSLDIALGAGGLPMGR	59
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NTDB id 600	KW2	RS01765	WP 011675413.1	SVRLDVRGSTKIEEGS.GDNKTQ	IGK	ITK	IKVV	KNKV	VAPP	PFKE	ALVD	IMF	GEGIS	STGEL	INT	AVEEG	IT	KKSG	AWF	AYN	312																																								
NTDB id 269	KZH43	RS08665	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGK	ETK	IKVV	KNKV	VAPP	PFKE	AVVE	IMY	GEGIS	KTGEL	LKI	ASDL	DI	KKAG	AWYS	YK	311																																								
NTDB id 228	SPD	RS09265	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGK	ETK	IKVV	KNKV	VAPP	PFKE	AVVE	IMY	GEGIS	KTGEL	LKI	ASDL	DI	KKAG	AWYS	YK	311																																								
NTDB id 194	SPR	RS08825	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGK	ETK	IKVV	KNKV	VAPP	PFKE	AVVE	IMY	GEGIS	KTGEL	LKI	ASDL	DI	KKAG	AWYS	YK	311																																								
NTDB id 159	SP	RS09750	WP 001085462.1	SVRLDVRGNTQIKGTG.DQKETN	VGK	ETK	IKVV	KNKV	VAPP	PFKE	AVVE	IMY	GEGIS	KTGEL	LKI	ASDL	DI	KKAG	AWYS	YK	311																																								
NTDB id 499	SM12261	RS08315	WP 078228268.1	SVRLDVRGNTQIKGTG.DQKETN	VGK	ETK	IKVV	KNKV	VAPP	PFKE	AVVE	IMY	GEGIS	KTGEL	LKI	ASDL	DI	KKAG	AWYS	YK	311																																								
NTDB id 527	SMSK321	RS11065	WP 001085454.1	SVRLDVRGNTQIKGTG.DQKETN	VGK	ETK	IKVV	KNKV	VAPP	PFKE	AVVE	IMY	GEGIS	KTGEL	LKI	ASDL	DI	KKAG	AWYS	YK	311																																								
NTDB id 453	Spy49	1753c	ACI62003.1	SVRLDVRGTTQIKGTG.DQKDSN	IGK	ETK	IKVV	KNKV	VAPP	PFKE	AEVE	IMY	GEGIS	RTEG	LVKI	ASDL	DI	QKAG	AWFS	YN	311																																								
NTDB id 408	SMU	RS09530	WP 002262392.1	SVRLDVRGNTQIKGTG.EQKDSN	IGK	ETK	IKVV	KNKV	VAPP	PFKE	AEFV	IIY	GEGIS	RTEG	LVKI	ASDL	GI	QKAG	AWYS	YN	311																																								
NTDB id 115	BSU	16940	NP 389576.2	SVRLEVRRAEQLKQGN.....DVM	GNK	TKI	KVV	KNKV	VAPP	FR	TAEVD	IMY	GEGIS	KEGE	ITD	LGTEL	DIV	QKSG	SWSY	YE	292																																								
NTDB id 625	LCA	RS02525	WP 011374196.1	TVRLEVRRAETIKNGT.....DM	GNR	ARI	KVV	KNKV	VAPP	FK	VAEVD	IMY	GQ	ISRT	GEL	VD	MAVE	KDI	INK	SGS	WYSY	294																																							
NTDB id 1313	DR	RS12030	WP 010888966.1	SVRLDVRKIGQ....PTKVGND	AV	NTV	KIK	TV	KNK	VAA	APF	KE	VEL	ALV	Y	GK	GFD	QLS	DLV	G	LA	AD	MI	TKK	AGS	FYSY	307																																		
NTDB id 1334	RAOC	RS04870	WP 004918236.1	SVRIDIRRLSDTGKIKDKS	GEV	IGN	R	TKV	KVV	KNKV	VAPP	FK	SAE	F	DI	M	G	G	V	S	K	V	G	E	L	D	V	A	T	D	L	D	I	I	Q	K	S	G	S	W	F	S	Y	Q	307																
NTDB id 1245	Cj1673c	YP 002345041.1	SVRLDVRKIVAT...L.KQNEEP	IGN	R	V	K	V	K	N	K	V	A	P	P	F	R	Q	A	E	F	D	V	M	F	G	E	G	L	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	Q	294					
NTDB id 1211	C694	RS00795	WP 000963128.1	SVRIDIRRIAS...L.KQNEQH	IGN	R	A	K	A	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	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	L	S	Y	Q	296			
NTDB id 1214	NCTC11637	00359	SQJ03206.1	SVRIDIRRIAA...L.KQNEQH	IGN	R	A	K	A	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	D	Y	G	V	K	L	D	I	V	D	K	S	G	A	W	L	S	Y	Q	296			
NTDB id 1389	A4U84	RS07560	WP 021112712.1	SVRLDIRRCGV...V.KGDDEI	IG	S	E	T	K	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	TKK	S	G	A	W	F	S	Y	D	310				
NTDB id 1130	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGS...I.KKGE	EV	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	INK	S	G	A	W	S	Y	N	294	
NTDB id 1124	NGFG	RS03960	WP 003688695.1	SVRLDIRRTGS...I.KKGE	EV	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	INK	S	G	A	W	S	Y	N	294	
NTDB id 1123	OK783	RS03845	WP 003688695.1	SVRLDIRRTGS...I.KKGE	EV	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	INK	S	G	A	W	S	Y	N	294	
NTDB id 1427	RS	RS02760	WP 011000510.1	SVRLDIRRIGS...I.KKGE	DEV	V	G	N	E	T	K	V	V	K	N	K	V	A	P	P	F	R	E	A	I	F	D	I	L	Y	G	A	G	V	S	R	E	G	E	I	D	L	G	V	E	A	K	V	V	E	K	S	G	A	W	S	Y	N	302		
NTDB id 1022	ACIAD	RS06390	WP 004925639.1	SVRLDIRRIGQ...V.KEGDEI	IG	S	E	T	K	V	V	K	N	K	M	A	P	P	F	R	E	A	I	F	Q	I	L	Y	G	K	G	V	N	Q	L	G	E	L	V	D	L	A	V	Q	Q	N	I	V	Q	K	A	G	A	W	S	Y	Q	293			
NTDB id 1074	ABD1	RS10195	WP 000344167.1	SVRLDIRRIGQ...V.KEGDEI	IG	S	E	T	K	V	V	K	N	K	M	A	P	P	F	R	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	D	I	V	Q	K	A	G	A	W	S	Y	Q	293			
NTDB id 1205	PSJM300	05545	AFN77183.1	SVRLDIRRTGA...V.KEGDEV	GS	E	T	R	V	K	V	K	N	K	V	A	P	P	F	R	Q	A	E	F	Q	I	L	Y	G	K	G	I	Y	R	N	G	E	I	D	L	G	V	Q	Q	L	V	E	K	S	G	A	W	A	Y	K	293					
NTDB id 411778	GSF13	RS21645	WP 095729681.1	SVRLDIRRIGS...V.KEGDEV	V	G	N	E	T	R	V	K	V	K	N	K	V	A	P	P	F	R	Q	A	E	F	I	I	M	Y	G	E	G	T	S	K	Q	E	L	I	D	L	G	V	K	H	L	V	D	K	A	G	A	W	F	S	Y	N	293		
NTDB id 1165	A1552VC	RS01565	WP 000344154.1	SVRLDIRRTGA...I.KEGDEV	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	Q	G	F	N	R	E	G	E	L	I	D	L	G	V	K	H	K	M	V	E	K	S	G	A	W	S	Y	N	293
NTDB id 1142	GTF74	RS11550	WP 000344154.1	SVRLDIRRTGA...I.KEGDEV	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	Q	G	F	N	R	E	G	E	L	I	D	L	G	V	K	H	K	M	V	E	K	S	G	A	W	S	Y	N	293

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NTDB id 269 KZH43 RS08665 WP 001085462.1	IEIEE	388
NTDB id 228 SPD RS09265 WP 001085462.1	IEIEE	388
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NTDB id 1124 NGFG RS03960 WP 003688695.1	.....	348
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consensus

 non conserved  
 similar  
 ≥ 50% conserved