

4.1

4.2

	560	570	580	590	600	610						
242	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPTRSEHLRS	SFLDE	Lz4W	
552	TAR	EAKVLRMR	FG	IDMNTDY	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSEVLRS	SFLDD	Ecoli	
556	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSEHLRS	SFLDE	Paeruginosa	
554	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPTRSEHLRS	SFLDE	Pfluorescens	
553	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKAWRKL	HPTRSEHLRS	SFLDE	Pputida	
311	TDR	ENVLRL	RF	LDGGRTR	TLEEVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKRLK	DFLE	Bsubtilis	
312	TDR	ENVLRL	RF	LDGGRTR	TLEEVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKRLK	DFLE	Bhalodurans	
468	SER	EAGVVR	LF	LDGQPR	TLEEIGQVYGVTR	ERI	ROI	SKTMSKL	HPSRSQVLR	RDYLD	Mbovis	
623	TPR	ERVLRMR	FG	IGMNTDH	TLEEVGQFVS	TR	ROI	EAKALRKLR	HPSRSKRLS	SFLDS	Atumefaciens	
330	SPR	RDVLR	LY	LDGGRMK	TLEEIGQIFNVTR	ERI	ROI	EAKALRKLR	HPNRNSVL	KEYIR	Anabaena	
568	PER	QEVVKMR	FG	LEDGYS	TLEEVGLHFNVTR	ERI	ROI	SKALRRLK	NPKKTQ	LKDYLED	Bburgdorferi	
556	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSEVLRS	SFLDD	Baphidicola	
591	TPR	ERVLRMR	FG	IGMNTDH	TLEEVGQFVS	TR	ROI	EAKALRKLR	HPSRSKRLS	SFLDS	Ccrescentus	
494	TDR	ERFVLIH	RF	LDGGRPK	TLEEVGSFNVTR	ERI	ROI	EAKALRKMR	HPIRSKQL	RAFLDL	Cmuridarum	
494	TDR	ERFVLIH	RF	LDGGRPK	TLEEVGSFNVTR	ERI	ROI	EAKALRKMR	HPIRSKQL	RAFLDL	Cpneumoniae	
494	TDR	ERFVLIH	RF	LDGGRPK	TLEEVGSFNVTR	ERI	ROI	EAKALRKMR	HPIRSKQL	RAFLDL	Ctrachomatis	
318	TPR	EKVLR	LY	LDGGRAR	TLEEVGKEFNVTR	ERI	ROI	EAKALRKLR	HPSRSKRLK	DFLD	Cacetobutylicum	
308	TDR	ENVLRL	RF	LDGGRTR	TLEEVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKQLK	DFLE	Efaecalis	
568	TPR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSETLRS	SFLDE	Hinfluenzae	
619	NER	EKAVIRM	RF	GLDDSDR	TLEEIGKELNVTR	ERV	ROI	SSAIKLR	SPQYGRIL	RNYLRI	HpyloriJ99	
609	NER	EKAVIRM	RF	GLDDSDR	TLEEIGKELNVTR	ERV	ROI	SSAIKLR	SPQYGRIL	RNYLRI	Hpylori	
327	TDR	ENVLRL	RF	LDGGRMH	TLEDVGKQFKVTR	ERI	ROI	EAKAIKLR	HPRRSKPL	RDFM	Llactislactis	
317	TER	ENVLRL	RF	LDGGRTR	TLEEVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKRLK	DFLE	Linterrogans	
314	TDR	ENVLRL	RF	LDGGRTR	TLEEVGRVFVGT	RE	ROI	EAKALRKLR	HPSRSKQLK	DFLE	Linnocua	
314	TDR	ENVLRL	RF	LDGGRTR	TLEEVGRVFVGT	RE	ROI	EAKALRKLR	HPSRSKQLK	DFLE	Lmonocytogenes	
356	SPR	RDVLR	LY	LDGGRMK	TLEEIGQIFNVTR	ERI	ROI	EAKALRKLR	HPNRNSIL	KEYIR	Maeruginosa	
429	SEQ	ELIVRM	RI	GMPPYN	ETKILIP	RE	ROI	ENKAIRKLR	HAVRNNP	SMSFLRI	Mgenitalium	
431	SEQ	ELIVRM	RI	GMPPYN	ETKILIP	RE	ROI	ENKAIRKLR	QAVRNNH	MSLSFMRG	Mpneumoniae	
647	TPR	EKVLRMR	FG	IGEKSDH	TLEEVGQDFE	VT	RE	ROI	EAKALRKLR	HPSRSKRLS	SFVES	Mxanthus
576	TPR	EAKVLRMR	FG	IDMNTDH	TLEEVGQFDVTR	ERI	ROI	EAKALRKLR	HPTRSDRLS	SFLDS	Ngonorrhoeae	
623	TPR	ERVLRMR	FG	IGMNTDH	TLEEVGQFVS	TR	ROI	EAKALRKLR	HPSRSKRLS	SFLDS	Rmeliloti	
613	TPR	ERVLRMR	FG	IGMNTDH	TLEEVGQFVS	TR	ROI	EAKALRKLR	HPSRSKRLS	SFLDQ	Rcapsulatus	
560	TPR	ERVLRMR	FG	IGMNTDH	TLEEVGQFVS	TR	ROI	SKALRKLQ	HPIRSKKLNS	SFRNG	Rprowazekii	
554	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSEVLRS	SFLDD	Styphimurium	
553	TAR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSEILKS	SFLDE	Sviolacea	
308	TDR	ENVLRL	RF	LDGGRTR	TLEEVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKRLK	DFMD	Saureus	
308	TDR	ENVLRL	RF	LDGGRTR	TLEEVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKRLK	DFMD	SaureusN315	
257	GER	ERKVQL	LY	LADGRPR	TLEEIGRIFVGT	RE	ROI	SKTLNKL	DHAFADQL	RGYLD	Saureofaciens	
310	TDR	ENVLRL	RF	LDGGRMK	TLEDVGKVFVGT	RE	ROI	EAKALRKLR	HPSRSKQLR	DFVED	Smutans	
308	TDR	ENVLRL	RF	LDGGRMK	TLEDVGKVFVGT	RE	ROI	EAKALRKLR	QPSRSKPLR	DFIED	Spneumoniae	
324	SPR	RDVLR	LY	LDGGRMK	TLEEIGQIFNVTR	ERI	ROI	EAKALRKLR	HPNRNSIL	KEYIR	Synechococcus	
332	SPR	AMVLRMR	RY	LDGGRPK	TLEEVGQYFNVTR	ERI	ROI	EAKALRKLR	HPSRSKYLK	SLSL	Tmaritima	
550	PAR	HEVLRMR	FG	LDGDYSQ	TLEEVGLYFDVTR	ERI	ROI	EAKALRKLR	HPHRSRRLK	DFLDS	Tpallidum	
556	TPR	EAKVLRMR	FG	IDMNTDH	TLEEVGKQFDVTR	ERI	ROI	EAKALRKLR	HPSRSEQLRS	SFLDI	Xfastidiosa	
377	SER	AMVLKLR	KG	LIDGREH	TLEEVGAYFVGT	RE	ROI	ENKALRKLR	KYHESRTRKLR	DFLE	Taquaticus	
362	SER	AMVLKLR	KG	LIDGREH	TLEEVGAFFVGT	RE	ROI	ENKALRKLR	KYHESRTRKLR	DFLD	Tthermophilus	

** *