

	1	10	20	30	40	50	60	70	80	90	100	110	120	130															

Staphylococcus	MKIF	ICED	PKQREN	MTI	IKNYIMIEEK	PMET	ALATDN	NPYV	LEQAKNMNDIG	GCYF	LDIQL	STD	INGIK	LGSSEIRKHP	PVGN	IFVTS	HSSELT	YLT	FVYK	VAMDF	IFKD	DPAL	LRTRI	IDC	LET	AH			
Parageobacillus	LKI	VADDD	ASSR	ILLRHF	IRFL	----	PQYK	VGEAIS	GEFVRL	VLEEK	P-DIAL	VDIK	MPD	--	LDGME	AVKICK	QSLPAL	QVIF	TTGY	DE--	FAVK	AFEIA	ATDY	IVKPI	ERTL	FHA	EKARK	LIE	
Geobacillus	LKI	VIADDD	ASSR	SILRHF	IHLF	----	PNYD	VVAERT	SGEFL	QLVL	QEQP	-DIV	VDIM	MPG--	LDGME	AVKICR	QLPAL	QVIF	TTGY	DE--	FAVE	AFEVS	ATDY	IVKPI	ERTL	FHA	EKARK	LIE	
Kosmotoga	IKAI	VYDDE	IIARK	AIIE	LIEDY	----	QNI	EVME	ERSSAE	EALDI	IKTK	PP-NV	VFLDI	QLPG--	FNGV	EFVELL	NRLEEK	VLYV	FISAY	DE--	YALD	AFEVD	AVDY	LMKPV	SPER	FAVT	VERIE	KV--	
Pelotomaculum	LKAL	IVDDE	YPAR	QELRY	ALSGF	----	GNV	EIVGE	ATNAQ	EAMAL	IRAL	DY-QV	LFDIS	MPG--	MNGD	LDGAI	QELPR	RPYI	IFVT	AYDE--	YAVS	AFEVN	AVDY	ILKPV	EPKRL	KKAL	DKVI	KL	TQ
Natranaerobius	MKLL	ILEDE	NFT	RKYL	KELV	QRN	----	KNID	EYATG	DVNE	ALIV	GSELP	-QIGL	IDIEL	PEQY	INGLE	ASRTA	QINPE	MEFIF	VTAYS	Q--	YALK	SFEV	HPYD	FVKPV	GEEN	LLES	VNNI	VERIK
Consensus	.K..!	#D#	..R..	l...i	n.e.v.ea	Eal	p	f	LDI	.\$p	#G.e	p	!	Fvtayd	#..%a..a%e!	.a.D%i	Kpv.p.rl	k	...	...	...	...	...	...	...	...	...	...	

	131	140	150	160	170	180	190	200	210	220	230	240	250	260																		

Staphylococcus	TRL	QLLSK	DN	-----	SVET	IEL	KRG	SN	SVYV	QYD	IMFF	ESST	KSHRL	IAHL	DN	RQIE	FYG	NL	KEL	SQL	--	DDR	FFRCH	NSFV	NRHN	IES	DSK	ERIV	YFKN	KEHC	YASV	R
Parageobacillus	LSRQ	-DHL	SIKT	-----	KNKR	LGI	SHNS	ILFL	PMED	ILFYEK	--	ESRK	TVI	HTAN	ERY	ETTE	-PLN	KMEN	KL-DDY	FFKTH	RSYI	VNL	KKI	YKIEP								
Geobacillus	MAKQ	CAAY	KAKQ	-----	PSKR	LGI	RSKNS	IYLL	PMED	ILFYEK	--	ESRK	TVI	HTAN	ERY	ETTE	-TLN	EIER	EL-DNC	FFKTH	RSYI	INL	KKI	YKI								
Kosmotoga	-----	LAKEG	-----	-----	VLEK	VPV	KEDN	LLEN	VDLEE	IFYFES	--	MDKK	VYL	HTKE	DELE	VYRY	NLSE	LESSL	-PSF	FARV	HKSFI	VNL	KKV	RRFSS								
Pelotomaculum	EGAP	AAKYL	ITGQ	EGP	AYRIG	DANG	QAPQ	SQIK	IDRIP	AEKQ	GKTIL	VTGS	DIFY	AFT--	EKDY	VYLK	TSOKL	-FTR	FTLKE	EARL	NPQV	FFRTH	RCYL	VNL	HKV	REI						
Natranaerobius	ANL	-----	-----	-----	SYKK	LILDE	PGEV	LQIP	MHKIL	FLEK	IEQK	KVSI	YLEDD	EYVQ	SKTLN	ELE	EML-D	INFV	RS	HSYI	VNKH	KIRK	ITAI	SQK	FYE	AYFEN						
Consensus	.....	.....	.....	.....	.....k	v	..dI	..%e..e	..kv	..ht	..d..e	L	ele	..l.d	..Ffr	Hrs%i	!Nlhk	!r	..i	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

	262	265

Staphylococcus	NVKKI	
Parageobacillus		
Geobacillus		
Kosmotoga		
Pelotomaculum		
Natranaerobius		
Consensus	.....	