

		765	EGGLS	806
Xanthomonadales	Xylella fastidiosa 9a5c	15838317	LFATHYFELTALADETY	GIANVHFDVAEHSERLVFMH
	Xylella fastidiosa Dixon	71275401	-----	-----
	Xylella fastidiosa Ann-1	71901697	-----	-----
	Xylella fastidiosa M23	182681688	-----E---	-----
	Xylella fastidiosa Temecula1	28198974	-----E---	-----
	Xanthomonas oryzae pv. oryzae	58581265	-----SH	D--A- L---G-----
	Xanthomonas campestris pv. vas	289662777	-----SH	A--A- L---G-----
	Xanthomonas gardneri ATCC 1986	325919899	-----SH	A--A- L---G-----
	Xanthomonas axonopodis pv. cit	346724192	-----SH	A--A- L---G-----
	Xanthomonas perforans 91-118	325924847	-----SH	A--A- L---G-----
	Xanthomonas vesicatoria ATCC 3	325915949	-----SH	A--A- L---G-----
	Xanthomonas albilineans GPE PC	285018993	-----PV	---P- L---GD-----
	Xanthomonas fuscans subsp. aur	294664088	-----ASH	A--A- L---G-----
	Stenotrophomonas maltophilia J	344206568	-----QH	---R- L---G-A----
	Stenotrophomonas sp. SKA14	254522797	-----QH	---R- L---G-A----
	Pseudoxanthomonas spadix BD-a5	357417002	-----S-SF	---P- L---GHT----
	Pseudoxanthomonas suwonensis 1	319786617	-----S--TPES	-----L---GDS-----
	Rhodanobacter sp. 2APBS1	352081856	-----E--N-FA	A-----L----
	Cellvibrio japonicus	192360641	-----I-S-PETVP	--V---LN-T--QDKI--L-
	Citrobacter youngae	283835500	-----Q-PEKME	-V---L--L--GDTIA--
	Colwellia psychrerythraea	71282195	-----L--GQIS	TL---L--M--DDNI---
	Escherichia coli	21951852	-----Q-PEKME	-V---L--L--GDTIA--
	Haemophilus influenzae	45645383	-----PEQLE	----I-L-L--NNTIA--
Halorhodospira halophila	121998436	-----M--EQIHP	-VV---LE-A--G--I--L-	
Marinobacter algicola	149374515	-----Q--DLE	HAV---LT-T--DDTI--L-	
Methylococcus capsulatus	53805175	-----E-CE	DVG---L---GDKV--L-	
Nitrosococcus watsoni	300113486	-----PEHLD	-V--L-LT-T--K--I--L-	
Oceanospirillum sp. MED92	89092115	-----S-P-QAA	NVF---LT---NDHI--L-	
Pseudoalteromonas atlantica	109899568	-----G--ALP	EL---L---G-SIR---	
Psychromonas ingrahamii	119946988	-----K-PENIP	ELV---L---GDAIA-L-	
Salmonella enterica	21951842	-----Q-PEKME	-V---L--L--GDTIA--	
Shewanella woodyi	170727679	-----Q-PELIS	NV---L--I--GDTI---	
Shigella dysenteriae	82778101	-----Q-PEKME	-----L--L--GDTIA--	
Tolumonas auensis	237809472	-----Q--EQQA	N-V-----I--GDSVA--	
Yersinia aldovae	238758208	-----T-PEKME	-VV---L--M--G-TIA--	
Yersinia mollaretii	238797129	-----T-PEKME	-VV---L--L--G-TIA--	

Figure S31

Partial sequence alignment of a conserved region of MutS showing a 5 aa insert that is commonly shared by all Xanthomonadales except *Pseudoxanthomonas suwonensis* and *Rhodanobacter* sp. 2APBS1. This signature was previously identified by (Cutino-Jimenez et al., 2010) and was described as all Xanthomonadales specific Signature.