

			211	246	
Xanthomonadales	Xanthomonas fuscans	294627124	EYELQAEVEREFRAADAW	PAYGSIVGTGSNACVLHY	
	Xanthomonas axonopodis	21244130	-----	-----	
	Xanthomonas campestris	289662144	-----	-----	
	Xanthomonas oryzae	166713279	-----	-----S-----	
	Xanthomonas albilineans	285017584	--Q---I-HA---G--C	-----S-----	
	Xanthomonas vesicatoria	325918107	--A-----	-----	
	Xanthomonas gardneri	325922293	---F-----	-----	
	Pseudoxanthomonas suwonensis	319788224	-----V-----	---A---A-G-G---	
	Pseudoxanthomonas spadix	357418373	--Q---LM-WV---SQ---	-----A-A-VT---	
	Stenotrophomonas maltophilia	194367049	-----L--V---S--V	---C---A-R-G-I---	
	Stenotrophomonas sp. SKA14	254521029	-----L--V---N--V	---C---A-R-G-I---	
	Xylella fastidiosa	71275757	--V---L--V---SC	---T---AA-A---	
	Rhodanobacter sp. 2APBS1	352089789	---VE--LL-VV-GQG-V	--FPP--AG-A---M--	
	Thioalkalivibrio sp. HL-EbGR7	220935926	---IE--LLY---R-GTE	---P---G-A-G-I---	
	Other γ-Proteobacteria	Alkalilimnicola ehrlichii	114321689	---E--FLAA--R-GGE	---P---G-G-G----
		Alteromonas macleodii	239995906	--Q-E--IHH--AM-G-R	S---ST---S-D---I---
Azotobacter vinelandii		226946740	--H-E--L-Y---KGG-R	M-----AG-R---I---	
Candidatus Regiella		304414301	--Q-EG-IQH--IQNG-R	F---NT---S-A-G-I---	
Citrobacter koseri		157148448	--Q-EG-IHH--NRHG-R	Y-S-NT---S-E-G-I---	
Congregibacter litoralis		88706374	-F-E--LLH--ARHG-R	H A-P---AG-----TM--	
Dickeya zeae		251791161	--Q-EG-IHH--NRHG-R	Y-S-NT---S-E---I---	
Enterobacter cloacae		295097444	--Q-EG-IHH--NRHG-R	F-S-NT--G-E-G-I---	
Erwinia pyrifoliae		259909571	--Q-EG-IQH--NRHG-R	F-S-NT---A-E---I---	
Escherichia coli		110643056	--H-EG-IHH--NRHG-R	Y-S-NT---S-E-G-I---	
Klebsiella pneumoniae		206579369	--Q-EG-ILH--NRHG-R	F-S-NT--G-E-G-I---	
Pantoea ananatis		291618745	--H-EG-IHH--NRHG-R	F-S-NT---S-E-G-I---	
Pectobacterium wasabiae		261819870	--Q-EG-IHH--TRHG-R	Y-S-NT---S-D---I---	
Photorhabdus asymbiotica		253988637	--Q-E--IHH--THQG-R	Y---NT-I-S-E-S-I---	
Photorhabdus luminescens		37527469	--Q-E--IHH--THQG-R	Y---NT---S-E-S-I---	
Proteus mirabilis		197285875	--Q--G-I-H--ISHG-R	F-S-N---S-E-G-I---	
Providencia stuartii		183599852	--Q-CG-L-H--TRHG-R	Y-S-N---S-E---I---	
Pseudomonas aeruginosa		152986578	--H-E--L-Y---KGG-K	M-----AA-R---I---	
Psychromonas ingrahamii		119944379	--Q-E--IRY--AQQG-T	N V-N---AG-HH--I---	
Salmonella enterica		16761839	--Q-EG-IHH--NRHG-R	Y-S-NT---S-E-G-I---	
Serratia odorifera		270264936	--Q-E--ILH--TRLG-R	Y-S-NT--G-E---I---	
Shigella sonnei		74313466	--H-EG-IHH--NRHG-R	Y-S-NT--S-E-G-I---	
Sodalis glossinidius		85059983	--Q-EG-IQH--NRHG-R	F-S-ST-A-S-E-G-I---	
Xenorhabdus bovienii		290476416	--Q-E--IHH--TRQG-R	Y---NT---A-E---I---	
Yersinia pestis		22127173	--Q-EG-ILH--TRHG-R	Y---NT--G-E-G-I---	
β-Proteobacteria		Oxalobacteraceae bacterium	329903498	--QID--LLH--NHGSD	F---T---A-A-----
	Methyloversatilis universalis	334133010	---IE--ILH--R-GSE	A-----AG-A-----	
	Limnobacter sp. MED105	149927953	-F-VE--LLYQ--KNGSE	A-----AS-A-----	
	Herbaspirillum seropedicae	300310037	--H-E--LLH--RNGSQ	Y-----A-A-S-----	
	Burkholderia glumae	238026252	---IE--LLH--RHG-A	G-----AA-A-----	
α-Proteobacteria	Burkholderia gladioli	330815566	---IE--LLH--RHGSA	G-----AA-A-----	
	Chromobacterium violaceum	34498577	--Q-E--LLHV-VGHG-R	Q---E---AA-A---T---	
	Sphingobium chlorophenolicum	334345114	-RQ-K-IL-DG---GGGE	G L-D---A-R--AS---	
	Sphingobium japonicum	294011039	-RQ-K-IL-DG---GGGE	G L-D---A-R--AS---	
Novosphingobium aromaticivoran	87198178	-RQ-T-VL-DG--QGGGE	G LS-D---A-R--AS---		

Figure S17

Partial sequence alignment of a conserved region of aminopeptidase P showing a 1 aa deletion that is present in all Xanthomonadales. The CSI has also been found to be shared by *Thioalkalivibrio* sp. HL-EbGR7 and *Alkalilimnicola ehrlichii*.