

		96		132
Stenotrophomonas	Stenotrophomonas maltophilia	194365058	LAFQTGSDCEVINALYRQG	GT PAQWLEQLNGIFAFALWD
	Stenotrophomonas sp. SKA14	254525303	-----	-S-----
Xanthomonadales	Xanthomonas campestris	21230846	-----ED	A --SY-NR-----
	Xanthomonas fuscans	294665428	-----ED	- --SY-NR-----
	Xanthomonas axonopodis	21242186	-----ED	- --SY-NR-----
	Xanthomonas oryzae	166712717	-----ED	A -DSY-NR-----
	Xanthomonas albilineans	285018780	-----EQ	A -VAL-DR-----
	Xylella fastidiosa	15836723	----H-----	- --TSF-NR-----
	Pseudoxanthomonas spadix	357417890	-----ED	A -ESF-NR-----
	Pseudoxanthomonas suwonensis	319786523	----A-----	E --SF-NR-----
	Rhodanobacter sp. 2APBS1	352081994	---T-----	EQ GSDFVGK-----
	Aeromonas hydrophila	117619348	----H-----LL---	KEK GPAF-DD-----I-Y-
	Aeromonas salmonicida	145299448	----H-----LL---	KEK GPAF-DD-----I-Y-
	Aliivibrio salmonicida	209694406	----D-----L---	DK G-DL--D-----I-Y-
	Alteromonas macleodii	239996399	---K-R-----LP-FQ-K	GIDFIDE-E-M---I-Y-
	Candidatus Hamiltonella	238899130	----D-----L---	QK GEPF-DE-Q-M-T-I-Y-
Citrobacter koseri	157146724	-----L---	QEK GVEF-DD-Q-M---Y-	
Cronobacter turicensis	260597080	-----L---	QEK GPEF-DE-Q-M---V-Y-	
Dickeya dadantii	271499720	-----L---	QEK GPEF-DE-R-M---Y-	
Edwardsiella ictaluri	238920794	-----L---	QEY GPDF-D--R-M---I-Y-	
Enterobacter cloacae	296103380	-----L---	QEK GPEF-DD-Q-M---Y-	
Erwinia tasmaniensis	188534462	----D-----L---	QEK GVDF-DD-Q-M---I-Y-	
Escherichia albertii	170767928	-----L---	QEK GPEF-DD-Q-M---Y-	
Escherichia coli	110640885	-----L---	QEK GPEF-DD-Q-M---Y-	
Klebsiella pneumoniae	206575898	-----L---	QEK GPEF-DD-Q-M---Y-	
Other Bacteria	Moritella marina	6691648	----E-----L---	KEK GT-F-DD-----Y-
	Moritella sp. PE36	149909581	----E----I-L---	KEK GT-F-DD-----Y-
	Pantoea sp. At-9b	258639664	-----L---	QEK GVDF-DD-Q-M---I---
	Pectobacterium atrosepticum	50120262	-----L---	QEK GPEF-DE-R-M---Y-
	Photobacterium profundum	90411576	----E----I-L---	KEK GPEL-DY----G-I-Y-
	Pseudoalteromonas atlantica	109899262	---R-K-----LP-E-Q	GVEFID--Q-M--V-Y-
	Psychromonas ingrahamii	119944862	---K-K----I-L---	EEK GCDF-DD-----C-Y-
	Salmonella enterica	167553960	-----L---	QEK GPDF-DD-Q-M---Y-
	Serratia odorifera	270263726	----A-----L---	QEK GIDF-DD-Q-M---Y-
	Shewanella amazonensis	119775236	--Y--N-----L---	QEY GSDF-DK-----V-Y-
	Shigella sonnei	74311201	-----L---	QEK GPEF-DD-Q-M---Y-
	Tolumonas auensis	237808953	-----L---	KEK GTAF-DD-S----I-Y-
	Vibrio alginolyticus	91225923	----D-----L---	QDM G-DL--E-----V-Y-
	Vibrio cholerae	297578599	----D-----L---	DK G-DL--E-----V-Y-
	Yersinia enterocolitica	123443198	-----L---	QEK GPEF-DD-Q-M---V-Y-
	Yersinia pestis Angola	162420654	-----L---	QEK GPAF-DD-Q-M---V-Y-

**Figure S28**

Partial sequence alignment of a conserved region of Asparagine synthase b protein showing a 1-2 aa insert that is uniquely shared by all Xanthomonadales except *Rhodanobacter* sp. 2APBS1. While genus *Stenotrophomonas* can be differentiated from other Xanthomonadales because of having 1 aa insert instead of 2 aa.