

**Table S1. List of proteins with a SH3\_3 (PF08239) and a PG\_binding\_1 (PF01471) domain and their additional domains.**

The analysis revealed the existence of a protein with similar characteristics as SjcF1 in 12 organisms in addition to *Anabaena*, namely in *Anabaena* sp. 90, *Anabaena variabilis*, *Calothrix* sp. PCC 7103, *Coleofasciculus chthonoplastes*, *Geitlerinema* sp. PCC 7407, *Leptolyngbya* sp. PCC 6406, *Nostoc punctiforme*, *Nostoc* sp. PCC 7524, *Oscillatoriales cyanobacterium* JSC-12, *Prochlorothrix hollandica*, *Rivularia* sp. PCC 7116 and *Spirulina subsalsa*. The different columns of the Table give the gi number of the protein sequence identified and analyzed, the phylum and the additional domains identified.

gi number	phylum	PAN_4	NLPC_P60	DUF2272	Glyco_hydro_25	Glucosamidase	Amidase_2	YkuD	Polysacc_deac_1	DPBB_1
186682808	Cyanobacteria	-	-	-	-	-	-	-	-	-
494128850	Proteobacteria	-	-	-	-	-	-	-	-	-
494496521	Firmicutes	-	x	-	-	-	-	-	-	-
490748236	Firmicutes	-	-	x	-	-	-	-	-	-
493028719	Cyanobacteria	-	-	-	-	-	-	-	-	-
492753267	Firmicutes	-	-	-	x	-	-	-	-	-
492752452	Firmicutes	-	-	-	x	-	-	-	-	-
492750548	Firmicutes	-	-	-	-	-	-	-	-	-
492746221	Firmicutes	-	-	-	x	-	-	-	-	-
256824326	Actinobacteria	-	x	-	-	-	-	-	-	-
386070363	Actinobacteria	-	-	-	-	-	-	-	-	x
308172757	Firmicutes	-	-	-	-	-	X	-	-	-
488497434	Actinobacteria	-	-	-	-	-	-	-	-	x
488482458	Actinobacteria	-	-	-	-	-	-	-	-	x
488478973	Actinobacteria	-	-	-	-	-	-	-	-	x
488484534	Actinobacteria	-	-	-	-	-	-	-	-	x
488503562	Actinobacteria	-	-	-	-	-	-	-	-	x
488502744	Actinobacteria	-	-	-	-	-	-	-	-	x
488499392	Actinobacteria	-	-	-	-	-	-	-	-	x
488489044	Actinobacteria	-	-	-	-	-	-	-	-	x
488488209	Actinobacteria	-	-	-	-	-	-	-	-	x
488486704	Actinobacteria	-	-	-	-	-	-	-	-	x
488482040	Actinobacteria	-	-	-	-	-	-	-	-	-
384159843	Firmicutes	-	-	-	-	-	X	-	-	-
384163036	Firmicutes	-	-	-	-	-	X	-	-	-
384163321	Firmicutes	-	-	-	-	-	X	-	-	-
488505648	Actinobacteria	-	-	-	-	-	-	-	-	x
490947858	Actinobacteria	-	-	-	-	-	-	-	-	x
384265766	Firmicutes	-	-	-	-	-	X	-	-	-
498217483	Firmicutes	-	-	-	-	-	-	-	-	-
383762137	Chloroflexi	-	-	-	-	-	-	-	x	-
489247679	Firmicutes	-	-	-	-	-	X	-	-	-
497241052	Cyanobacteria	-	-	-	-	-	-	-	-	-
414079344	Cyanobacteria	-	-	-	-	-	-	-	-	-
17229353	Cyanobacteria	-	-	-	-	-	-	-	-	-
23100366	Firmicutes	-	-	-	-	x	-	-	-	-
75910951	Cyanobacteria	-	-	-	-	-	-	-	-	-
50843612	Actinobacteria	-	-	-	-	-	-	-	-	x
427731733	Cyanobacteria	-	-	-	-	-	-	-	-	-
427734114	Cyanobacteria	-	-	-	-	-	-	-	-	-
428226741	Cyanobacteria	-	-	-	-	-	-	-	-	-
429504736	Firmicutes	-	-	-	-	-	X	-	-	-
495585610	Cyanobacteria	-	-	-	-	-	-	-	-	-
451946357	Proteobacteria	x	-	-	-	-	-	-	-	-
480330467	Actinobacteria	-	-	-	-	-	-	-	-	x
512181980	Firmicutes	-	x	-	-	-	-	-	-	-
514418193	Firmicutes	-	-	-	-	-	-	-	-	-
514978205	Actinobacteria	-	-	-	-	-	-	-	-	x
515505474	Firmicutes	-	-	-	-	-	X	-	-	-
515986714	Firmicutes	-	-	-	-	-	X	-	-	-

