

Supplementary Table S2 Metagenomic datasets for comparison of functional genes.

Name	Cyanobacteria	Sequencing platform	Number of paired reads
FACHB-838	Nostoc	Illumina, HiSeq PE150	5,360,865
FACHB-133	Nostoc	Illumina, HiSeq PE150	5,112,795
FACHB-190	Nostoc	Illumina, HiSeq PE150	6,164,039
FACHB-83	Nostoc	Illumina, HiSeq PE150	6,500,346
FACHB-87	Nostoc	Illumina, HiSeq PE150	8,257,652
FACHB-888	Nostoc	Illumina, HiSeq PE150	5,290,720
FACHB-391	Nostoc	Illumina, HiSeq PE150	4,603,133
FACHB-280	Nostoc	Illumina, HiSeq PE150	5,363,612
FACHB-973	Nostoc	Illumina, HiSeq PE150	7,840,078
FACHB-252	Nostoc	Illumina, HiSeq PE150	5,407,291
FACHB-892	Nostoc	Illumina, HiSeq PE150	8,236,737
FACHB-393	Nostoc	Illumina, HiSeq PE150	4,569,406
FACHB-130	Nostoc	Illumina, HiSeq PE150	7,769,101
FACHB-1342	Microcystis	Illumina, HiSeq PE150	10,818,414
FACHB-1317	Microcystis	Illumina, HiSeq PE150	7,359,768
FACHB-1337	Microcystis	Illumina, HiSeq PE150	5,480,381
FACHB-1306	Microcystis	Illumina, HiSeq PE150	6,739,925
FACHB-1323	Microcystis	Illumina, HiSeq PE150	6,625,617
FACHB-1112	Microcystis	Illumina, HiSeq PE150	6,400,383
FACHB-1413	Microcystis	Illumina, HiSeq PE150	5,766,480
FACHB-1318	Microcystis	Illumina, HiSeq PE150	7,366,750
FACHB-1005	Microcystis	Illumina, HiSeq PE150	10,857,100
FACHB-1023	Microcystis	Illumina, HiSeq PE150	6,744,714
FACHB-1344	Microcystis	Illumina, HiSeq PE150	5,777,974
FACHB-142	Microcystis	Illumina, HiSeq PE150	5,575,886
FACHB-1330	Microcystis	Illumina, HiSeq PE150	6,370,333

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(continued).

Name	Cyanobacteria	Sequencing platform	Number of paired reads
FACHB-1332	Microcystis	Illumina, HiSeq PE150	6,842,845
FACHB_927	Microcystis	Illumina, HiSeq PE150	14,412,193
FACHB_1352	Microcystis	Illumina, HiSeq PE150	9,633,213
FACHB-1351	Microcystis	Illumina, HiSeq PE150	7,025,466
FACHB-200	Microcystis	Illumina, HiSeq PE150	5,932,916
FACHB-1026	Microcystis	Illumina, HiSeq PE150	10,219,791
FACHB-1028	Microcystis	Illumina, HiSeq PE150	8,859,867
FACHB-1095	Microcystis	Illumina, HiSeq PE150	6,399,577
FACHB-1340	Microcystis	Illumina, HiSeq PE150	10,329,617
FACHB-978	Microcystis	Illumina, HiSeq PE150	5,713,829
FACHB-1179	Microcystis	Illumina, HiSeq PE150	5,405,365
FACHB-434	Microcystis	Illumina, HiSeq PE150	10,970,583
FACHB-939	Microcystis	Illumina, HiSeq PE150	9,883,262
FACHB-913	Microcystis	Illumina, HiSeq PE150	10,408,135
FACHB-1027	Microcystis	Illumina, HiSeq PE150	12,513,549
FACHB-1312	Microcystis	Illumina, HiSeq PE150	6,117,443