

Additional File 2: Table S1

ALGAE			
Organism name	Division	Sample code	website link
<i>Sargassum thunbergii</i>	Phaeophyta	YRMA	https://www.bioinfodata.org/Blast4OneKP/species?id=74
<i>Laminaria japonica</i>	Phaeophyta	QDTV	https://www.bioinfodata.org/Blast4OneKP/species?id=57
<i>Chlorella minutissima</i>	Chlorophyta	MWAN	https://www.bioinfodata.org/Blast4OneKP/species?id=742
<i>Chlamydomonas reinhardtii</i> (<i>Chlamydomonas smithii</i>)	Chlorophyta	3055	http://www.uniprot.org/blast/uniprot/B201605198A530B6CA0
<i>Roya obtusa</i>	Chlorophyta	XRTZ	https://www.bioinfodata.org/Blast4OneKP/species?id=805
<i>Penium margaritaceum</i>	Chlorophyta	AEKF	https://www.bioinfodata.org/Blast4OneKP/species?id=821
<i>Klebsormidium subtile</i>	Chlorophyta	FQLP	https://www.bioinfodata.org/Blast4OneKP/species?id=791
<i>Mesotaenium endlicherianum</i>	Chlorophyta	WDCW	https://www.bioinfodata.org/Blast4OneKP/species?id=800
<i>Coleochaete scutata</i>	Chlorophyta	VQBJ	https://www.bioinfodata.org/Blast4OneKP/species?id=759
<i>Chondrus crispus</i>	Rhodophyta	UGPM	https://www.bioinfodata.org/Blast4OneKP/species?id=1157
<i>Gracilaria lemaneiformi</i>	Rhodophyta	IKWM	https://www.bioinfodata.org/Blast4OneKP/species?id=1162
BACTERIA			
Organism name	Family	Organism ID	website link
<i>Rhodopseudomonas palustris</i> (strain ATCC BAA-98 / CGA009)	Bradyrhizobiaceae	258594	http://genome.microbedb.jp/cyanobase/Rhodopseudomonas
<i>Anabaena variabilis</i> ATCC 29413	Nostocaceae	240292	http://genome.microbedb.jp/cyanobase/AVA
<i>Arthrospira platensis</i> NIES-39	Arthrospira	696747	http://genome.microbedb.jp/cyanobase/NIES39
<i>Microcystis aeruginosa</i> NIES-843	Chroococcales	449447	http://genome.microbedb.jp/cyanobase/Microcystis
<i>Prochlorococcus marinus</i> SS120	Prochlorococceae	167539	http://genome.microbedb.jp/cyanobase/SS120
<i>Nostoc punctiforme</i> ATCC 29133	Nostocaceae	63737	http://genome.microbedb.jp/cyanobase/NPUN
<i>Escherichia coli</i> (strain K12 / DH10B)	Enterobacteriaceae	316385	http://www.uniprot.org/taxonomy/316385
<i>Staphylococcus aureus</i>	Staphylococceae	703339	http://www.ncbi.nlm.nih.gov/genome/?term=txid703339