

**TABLE S3**

Accession numbers and taxonomic origin of proteins used for phylogenetic reconstruction

Accession number (GI)	Species	Taxonomy	Thioesterase subfamily
11465506	<i>Cyanidium caldarium</i> (CyaCa)	Rhodophyta	Slr0204-type (TE12)
30468143	<i>Cyanidioschyzon merolae</i> strain 10D (CyaMe)		
194476806	<i>Paulinella chromatophora</i> (PauCh)	Euglyphida	
75906622	<i>Anabaena variabilis</i> ATCC 29413 (AnaVa)	Cyanobacteria	
67924673	<i>Crocospaera watsonii</i> WH 8501 (CroWa)		
218246677	<i>Cyanothece</i> sp. PCC 8801 (CyaSp)		
284929268	<i>Cyanobacterium</i> UCYN-A (CyaUCYN)		
119487534	<i>Lyngbya</i> sp. PCC 8106 (LynSp)		
186686472	<i>Nostoc punctiforme</i> PCC 73102 (NosPu)		
300864056	<i>Oscillatoria</i> sp. PCC 6506 (OscSp)		
114794605	<i>Prochlorococcus marinus</i> Mit9313 (ProMa) [2HX5]		
1001691	<i>Synechocystis</i> sp. PCC 6803 (Slr0204)		
56752356	<i>Synechococcus elongatus</i> PCC 6301 (SynEl)		
148243355	<i>Synechococcus</i> sp. RCC307 (SynSp)		
22298031	<i>Thermosynechococcus elongatus</i> BP-1 (TheEl)		
113477488	<i>Trichodesmium erythraeum</i> IMS101 (TriEr)		
162451288	<i>Sorangium cellulosum</i> 'So ce 56' (SorCe)	δ-proteobacteria	
182414623	<i>Opiritatus terrae</i> PB90-1 (OpiTe)	Verrucomicrobia	
90109612	<i>Escherichia coli</i> K-12 (EscCo) [2FS2]	γ-proteobacteria	Paal-type (TE13)
299533437	<i>Comamonas testosteroni</i> S44 (ComTe)	β-proteobacteria	4HBT-II-type (TE11)
239813088	<i>Variovorax paradoxus</i> S110 (VarPa)		
40889912	<i>Escherichia coli</i> (EscCo) [1VH9]	γ-proteobacteria	
268317024	<i>Rhodothermus marinus</i> DSM 4252 (RhoMa)	Bacteroidetes	
193215950	<i>Chloroherpeton thalassium</i> ATCC 35110 (ChlTh)	Chlorobi	
156233524	<i>Roseiflexus castenholzii</i> DSM 13941 (RosCa)	Chloroflexi	
46199482	<i>Thermus thermophilus</i> HB27 (TheTh)	Deinococcus-Thermus	
56379941	<i>Geobacillus kaustophilus</i> HTA426 (GeoKa)	Other Firmicutes	
217963510	<i>Listeria monocytogenes</i> HCC23 (LisMo)		
15923934	<i>Staphylococcus aureus</i> subsp. <i>aureus</i> Mu50 (StaAu)		
51892109	<i>Symbiobacterium thermophilum</i> IAM 14863 (SymTh)		
269797443	<i>Veillonella parvula</i> DSM 2008 (VeiPa)		
255973510	<i>Enterococcus faecalis</i> T2 (EntFa)	Lactobacillales (Firmicutes)	
227511388	<i>Lactobacillus buchneri</i> ATCC 11577 (LacBu)		
260662032	<i>Lactobacillus fermentum</i> 28-3-CHN (LacFe)		
227892451	<i>Lactobacillus salivarius</i> ATCC 11741 (LacSa)		
170018044	<i>Leuconostoc citreum</i> KM20 (LeuCi)		
33589776	<i>Arabidopsis thaliana</i> (AtHDCT1; At1g48320)	Plants	
149944285	<i>Arabidopsis thaliana</i> (AtHDCT2; At5g48950)		
115454707	<i>Oryza sativa</i> Japonica Group (Oryza)		
116786436	<i>Picea sitchensis</i> (PicSi)		
168022626	<i>Physcomitrella patens</i> subsp. <i>patens</i> (PhyPa)		
302804672	<i>Selaginella moellendorffii</i> (SelMo)		