

Supplemental Table 5. Full protein list used for the phylogenetic tree of light harvesting complex proteins

Database ID	Organism	Tree ID
F0Y7T9	<i>Aureococcus anophagefferens</i>	Aur ano - F0Y7T9
AAM94016	<i>Griffithsia japonica</i>	Gri jap - AAM94016
L1J8U8	<i>Guillardia theta</i> CCMP2712	Gui the - L1J8U8
M2XW22	<i>Galdieria sulphuraria</i>	Gal sul - M2XW22
D7FTS3	<i>Ectocarpus siliculosus</i>	Ect sil - D7FTS3
K0TQZ7	<i>Thalassiosira oceanica</i>	Tha oce - K0TQZ7
A0A1E7F4Y9	<i>Fragilariopsis cylindrus</i> CCMP1102	Fra cyl - A0A1E7F4Y9
B7FNY6	<i>Phaeodactylum tricornutum</i> CCAP 1055/1	Pha tri - B7FNY6
W7TTN9	<i>Nannochloropsis gaditana</i> CCMP526	Nan gad - W7TTN9
R1EM38	<i>Emiliana huxleyi</i>	Emi hux - R1EM38
R1D5F1	<i>Emiliana huxleyi</i>	Emi hux - R1D5F1
A0A383WCU3	<i>Tetrademus obliquus</i>	Tet obl - A0A383WCU3
E1ZH63	<i>Chlorella variabilis</i>	Chl var - E1ZH63
Q05093	<i>Chlamydomonas reinhardtii</i>	Chl rei - Q05093
A0A150G1F9	<i>Gonium pectorale</i>	Gon pec - A0A150G1F9
D8UIW8	<i>Volvox carteri f. nagariensis</i>	Vol car - D8UIW8
A0A0G4EUZ0	<i>Vitrella brassicaformis</i>	Vit bra - A0A0G4EUZ0
A0A4D9CVF2	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9CVF2
K8YPQ7	<i>Nannochloropsis gaditana</i> CCMP526	Nan gad - K8YPQ7
W7T8I0	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7T8I0
B8BYV3	<i>Thalassiosira pseudonana</i>	Tha pse - B8BYV3
A0A1E7F7J1	<i>Fragilariopsis cylindrus</i>	Fra cyl - A0A1E7F7J1
D8LDT7	<i>Ectocarpus siliculosus</i>	Ect sil - D8LDT7
A0A1Z5JVM0	<i>Fistulifera solaris</i>	Fis sol - A0A1Z5JVM0
B7G9B9	<i>Phaeodactylum tricornutum</i>	Pha tri - B7G9B9
W7U2H0	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7U2H0
D7G7Q9	<i>Ectocarpus siliculosus</i>	Ect sil - D7G7Q9
W7TIB0	<i>Nannochloropsis gaditana</i> B31	Nan gad - LHCX3
K8YWB4	<i>Nannochloropsis gaditana</i> CCMP526	Nan gad - K8YWB4
A0A4D9D9G1	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9D9G1
W7UBF0	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7UBF0
A0A0G4GTJ0	<i>Chromera velia</i>	Chr vel - A0A0G4GTJ0
B7FYL0	<i>Phaeodactylum tricornutum</i>	Pha tri - B7FYL0
A0A1Z5JWM0	<i>Fistulifera solaris</i>	Fis sol - A0A1Z5JWM0
P93664	<i>Chlamydomonas reinhardtii</i>	Chl rei - LHCSR1
P0DO19	<i>Chlamydomonas reinhardtii</i>	Chl rei - LHCSR3
G9E2K8	<i>Nannochloropsis</i> sp.	Nan sp - G9E2K8
O50032	<i>Nannochloropsis</i> sp.	Nan sp - O50032
W7T4V5	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7T4V5
A0A4D9D2U9	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9D2U9
A0A4D9CSN8	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9CSN8
K8Z8N4	<i>Nannochloropsis gaditana</i> CCMP526	Nan gad - K8Z8N4
W7TXE6	<i>Nannochloropsis gaditana</i>	Nan gad - W7TXE6
W7TRI0	<i>Nannochloropsis gaditana</i>	Nan gad - W7TRI0
W7U405	<i>Nannochloropsis gaditana</i>	Nan gad - W7U405
W7TI84	<i>Nannochloropsis gaditana</i>	Nan gad - W7TI84
W7TFG9	<i>Nannochloropsis gaditana</i>	Nan gad - W7TFG9
W7TEK9	<i>Nannochloropsis gaditana</i>	Nan gad - W7TEK9
W7TCK1	<i>Nannochloropsis gaditana</i>	Nan gad - W7TCK1
W7TY83	<i>Nannochloropsis gaditana</i>	Nan gad - W7TY83
M2X4C9	<i>Galdieria sulphuraria</i>	Gal sul - M2X4C9
Q7XYZ2	<i>Griffithsia japonica</i>	Gri jap - Q7XYZ2
R7QQX2	<i>Chondrus crispus</i>	Cho cri - R7QQX2
A0A2V3J3F8	<i>Gracilariopsis chorda</i>	Gra cho - A0A2V3J3F8
F0YKY4	<i>Aureococcus anophagefferens</i>	Aur ano - F0YKY4
B7FSP4	<i>Phaeodactylum tricornutum</i> CCAP 1055/1	Pha tri - B7FSP4
B8C2K6	<i>Thalassiosira pseudonana</i> CCMP1335	Tha pse - B8C2K6
K0SVZ0	<i>Thalassiosira oceanica</i>	Tha oce - K0SVZ0
A0A0G4ELS5	<i>Vitrella brassicaformis</i> CCMP3155	Vit bra - A0A0G4ELS5
D8LMR8	<i>Ectocarpus siliculosus</i>	Ect sil - D8LMR8
W7TX20	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7TX20

A0A4D9DD95	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9DD95
M2Y652	<i>Galdieria sulphuraria</i>	Gal sul - M2Y652
A0A5J4ZAY0	<i>Porphyridium purpureum</i>	Por pur - A0A5J4ZAY0
L1IP41	<i>Guillardia theta</i>	Gui the - L1IP41
M1UU36	<i>Cyanidioschyzon merolae</i>	Cya mer - M1UU36
Q9FDZ6	<i>Galdieria sulphuraria</i>	Gal sul - Q9FDZ6
A0A1Z5JQG8	<i>Fistulifera solaris</i>	Fis sol - A0A1Z5JQG8
B7FUM6	<i>Phaeodactylum tricornutum</i>	Pha tri - B7FUM6
A8KCN4	<i>Guillardia theta</i>	Gui the - A8KCN4
A8KCR3	<i>Guillardia theta</i>	Gui the - A8KCR3
A0A1X6NTR2	<i>Porphyra umbilicalis</i>	Por umb - A0A1X6NTR2
W7TJ16	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7TJ16
A0A4D9CZ73	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9CZ73
D8LCR7	<i>Ectocarpus siliculosus</i>	Ect sil - D8LCR7
Q7XY90	<i>Griffithsia japonica</i>	Gri jap - Q7XY90
A0A2V3IPQ1	<i>Gracilariopsis chorda</i>	Gra cho - A0A2V3IPQ1
M1VKK5	<i>Cyanidioschyzon merolae</i>	Cya mer - CMQ142C
A0A0M0JPH0	<i>Chrysochromulina</i> sp. CCMP291	Chr sp - A0A0M0JPH0
Q2IA67	<i>Isochrysis galbana</i>	Iso gal - Q2IA67
A0A4D9CSZ5	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9CSZ5
K8ZB38	<i>Nannochloropsis gaditana</i> CCMP526	Nan gad - K8ZB38
W7T6P5	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7T6P5
A0A0G4FMW2	<i>Vitrella brassicaformis</i>	Vit bra - A0A0G4FMW2
F0YEX6	<i>Aureococcus anophagefferens</i>	Aur ano - F0YEX6
D7FWB9	<i>Ectocarpus siliculosus</i>	Ect sil - D7FWB9
F0Y5A3	<i>Aureococcus anophagefferens</i>	Aur ano - F0Y5A3
W7UAI7	<i>Nannochloropsis gaditana</i> B31	Nan gad - W7UAI7
A0A4D9CWW0	<i>Nannochloropsis salina</i> CCMP1776	Nan sal - A0A4D9CWW0
B7GAS4	<i>Phaeodactylum tricornutum</i>	Pha tri - B7GAS4
A0A1Z5KIR4	<i>Fistulifera solaris</i>	Fis sol - A0A1Z5KIR4
A0A1Z5J6G4	<i>Fistulifera solaris</i>	Fis sol - A0A1Z5J6G4
B8BU33	<i>Thalassiosira pseudonana</i>	Tha pse - B8BU33
K0TFU3	<i>Thalassiosira oceanica</i>	Tha oce - K0TFU3
D7G3A4	<i>Ectocarpus siliculosus</i>	Ect sil - D7G3A4
F0YCE3	<i>Aureococcus anophagefferens</i>	Aur ano - F0YCE3
