

Supplementary Materials

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Supplementary Table S1. 18S rRNA sequence information for phylogenetic analysis

Species	Isolation source	Accession No.
<i>Dunaliella salina</i> KCTC14434BP	Salt pan Yeongjong Island, Korea	OK161018 ^a
<i>Arabidopsis thaliana</i>	Qualifiers	X16077
<i>Volvox tertius</i> UTEX0132	Queen's Ditch, Cambridge, England	FJ610144
<i>Chlamydomonas reinhardtii</i> CC125	Qualifiers	KR092109
<i>Haematococcus pluvialis</i> IMBI-1	Qualifiers	KU193764
<i>Dunaliella tertiolecta</i> UTEX LB999	Oslofjord, Norway	DQ009773
<i>Dunaliella tertiolecta</i> CCAP19/42	Marine, Israel	Unpublished
<i>Dunaliella salina</i> CCAP19/18	Hutt Lagoon, Western Australia	EF473745
<i>Dunaliella salina</i> CCAP19/30	Qualifiers	DQ447648
<i>Dunaliella salina</i> CCAP19/20	-	KJ094624
<i>Dunaliella salina</i> UTEX LB200	-	DQ009779
<i>Dunaliella salina</i> MBTD-CMFRI-S135	-	JF708161
<i>Dunaliella salina</i> UTEX LB2538	Bardawil Lagoon, Israel	DQ009777
<i>Dunaliella salina</i> CCAP19/12	Brackish, North Sinai Israel	KJ756842
<i>Dunaliella</i> sp. SAS11133	-	KF054056
<i>Dunaliella polymorpha</i> CCAP19/7a	Brackish, Isle of Wight, UK	KJ756821
<i>Dunaliella tertiolecta</i> CCAP19/6b	Brackish, Oslo Fjord, Norway	KJ756820
<i>Dunaliella primolecta</i> CCAP11/34	Marine, Devon, England, UK	KJ756819
<i>Dunaliella tertiolecta</i> Dtsi	-	EF473729
<i>Chlorella sorokiniana</i> UTEX2714	Qualifiers	LK021940

18S ribosomal RNA (18S rRNA) sequence accession numbers were obtained from NCBI (National Center for Biotechnology Information, USA).

^aThis study.

Supplementary Table S2. ITS sequence information for phylogenetic analysis

Species	Isolation source	Accession No.
<i>Dunaliella salina</i> KCTC14434BP	Salt pan Yeongjong Island, Korea	Supplementary Fig. S1 ^a
<i>Dunaliella salina</i> CCAP19/18	Hutt Lagoon, Western Australia	EF473746
<i>Dunaliella salina</i> CCAP19/30	Qualifiers	KJ094632
<i>Dunaliella salina</i> CCAP19/20	Qualifiers	KJ094624
<i>Dunaliella salina</i> UTEX LB2538	Bardawil Lagoon, Israel	DQ377085
<i>Dunaliella tertiolecta</i> CCAP19/27	Halifax, Canada	KJ094631
<i>Dunaliella tertiolecta</i> CCAP19/24	Qualifiers	KJ094628
<i>Dunaliella tertiolecta</i> CCAP19/42	Marine, Israel	Unpublished
<i>Dunaliella tertiolecta</i> CCMP1302	Qualifiers	DQ377096
<i>Dunaliella tertiolecta</i> CCAP19/6b	Brackish, Oslo Fjord, Norway	KJ094612
<i>Dunaliella salina</i> CCAP19/25	Qualifiers	KJ094629
<i>Dunaliella parva</i> CCAP19/1	Qualifiers	KJ094607
<i>Dunaliella parva</i> CCAP19/9	Salt marsh, Essex, England, UK	KJ094617
<i>Dunaliella polymorpha</i> CCAP19/7a	Qualifiers	KJ094613
<i>Dunaliella</i> sp. CCAP19/15	Brackish, North Sinai, Israel	KJ094621
<i>Dunaliella</i> sp. CCAP19/32	Salt deposit, California, USA	KJ094634
<i>Dunaliella salina</i> CCAP19/3	Qualifiers	KJ094609
<i>Dunaliella salina</i> CCAP19/39	Sea salt, Gran Canaria, Spain	KJ094637
<i>Dunaliella salina</i> CCAP19/31	Qualifiers	KJ094633
<i>Dunaliella salina</i> CS265	Qualifiers	JN797804
<i>Dunaliella</i> sp. MBTD-CMFRI-S135	Sea water, Calicut, Kerala	JN797802
<i>Dunaliella</i> sp. MBTD-CMFRI-S089	Salt pan, Chennai, TN (EC)	JN797806
<i>Dunaliella</i> sp. MBTD-CMFRI-S118	Salt pan, Nellore, AP (EC)	JN797808
<i>Dunaliella</i> sp. MBTD-CMFRI-S086	Salt pan, Tuticorin, TN (EC)	JN797805
<i>Dunaliella</i> sp. MBTD-CMFRI-S121	Pulicat salt lake, AP (EC)	JN797809
<i>Dunaliella</i> sp. MBTD-CMFRI-S115	Salt pan, Chennai, TN (EC)	JN797807
<i>Dunaliella</i> sp. MBTD-CMFRI-S122	Salt pan, Ribandar, Goa (WC)	JN797799
<i>Dunaliella</i> sp. MBTD-CMFRI-S133	Salt pan, Kutch, Gujarat (WC)	JN797801
<i>Dunaliella</i> sp. MBTD-CMFRI-S125	Salt pan, Pilar, Goa (WC)	JN797800
<i>Dunaliella</i> sp. MBTD-CMFRI-S147	Salt pan, Kutch, Gujarat (WC)	JN797803
<i>Dunaliella salina</i> KU07	Northeastern part, Thailand	KF825548
<i>Dunaliella salina</i> KU11	Northeastern part, Thailand	KF825549
<i>Dunaliella salina</i> KU13	Northeastern part, Thailand	KF825547
<i>Dunaliella</i> sp. GSL6/1	Great Salt Lake, USA	MG952975
<i>Chlorella sorokiniana</i> UTEX2714	Qualifiers	LK021940

Internal transcribed spacer (ITS) sequence accession numbers were obtained from NCBI (National Center for Biotechnology Information, USA).

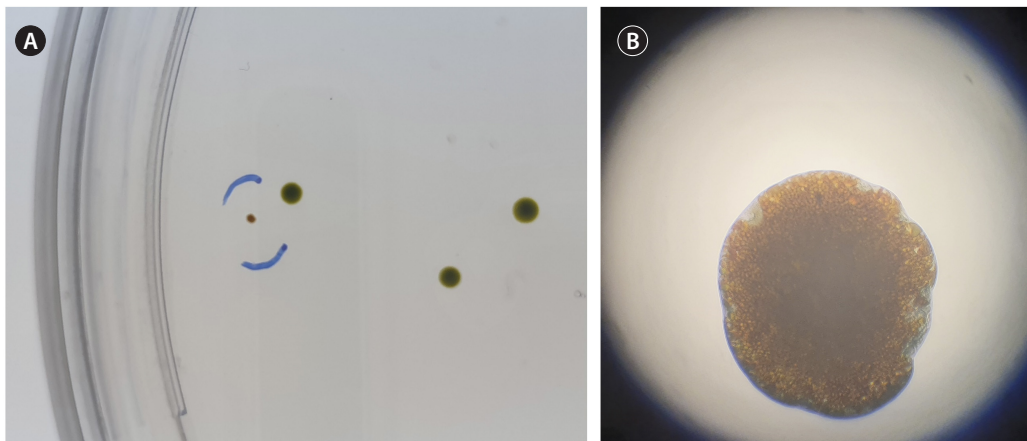
^aThis study.

(5' to 3')

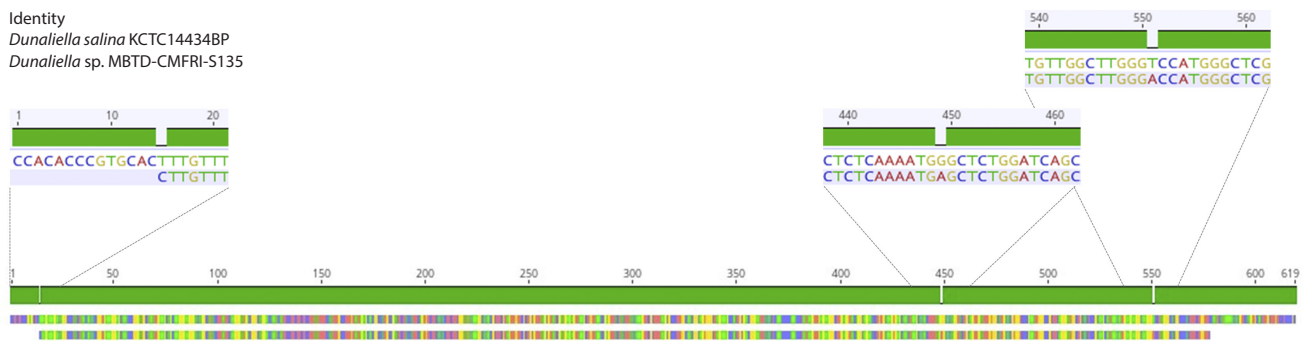
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Supplementary Fig. S1. Partial internal transcribed spacer sequence of *Dunaliella salina* KCTC14434BP.



Supplementary Fig. S2. Screening of orange colony. (A) Green- and orange-colored colonies under high-light irradiation. (B) Zoomed image of orange colony.



Supplementary Fig. S3. Alignment of internal transcribed spacer sequences between the newly isolated and the nearest strains. *Dunaliella salina* OH214 strain (KCTC14434BP) and *Dunaliella* sp. MBTD-CMFRI-S135 were compared, and the different parts were enlarged.