[Supplementary information]

Evaluation of intracellular lipid bodies in *Chlamydomonas reinhardtii* strains by flow cytometry

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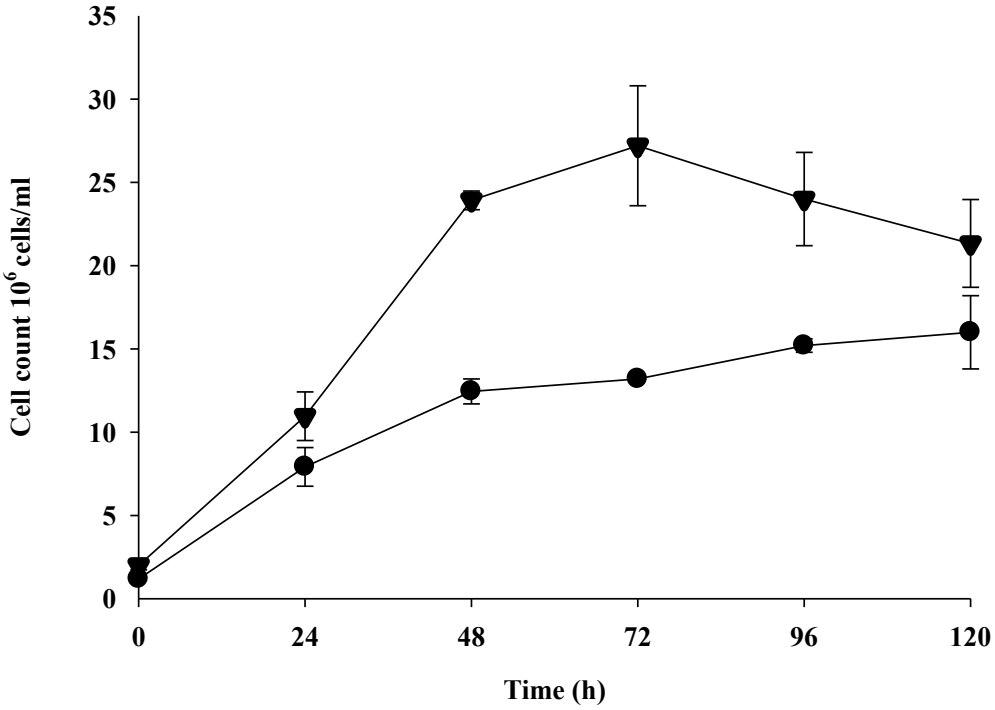
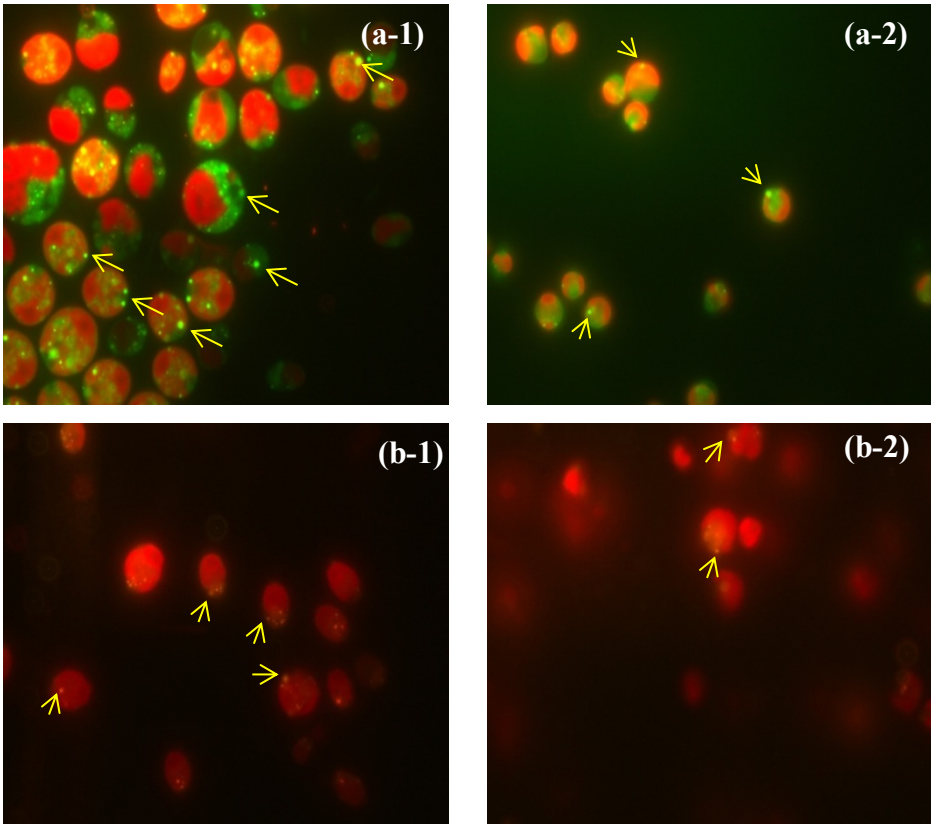
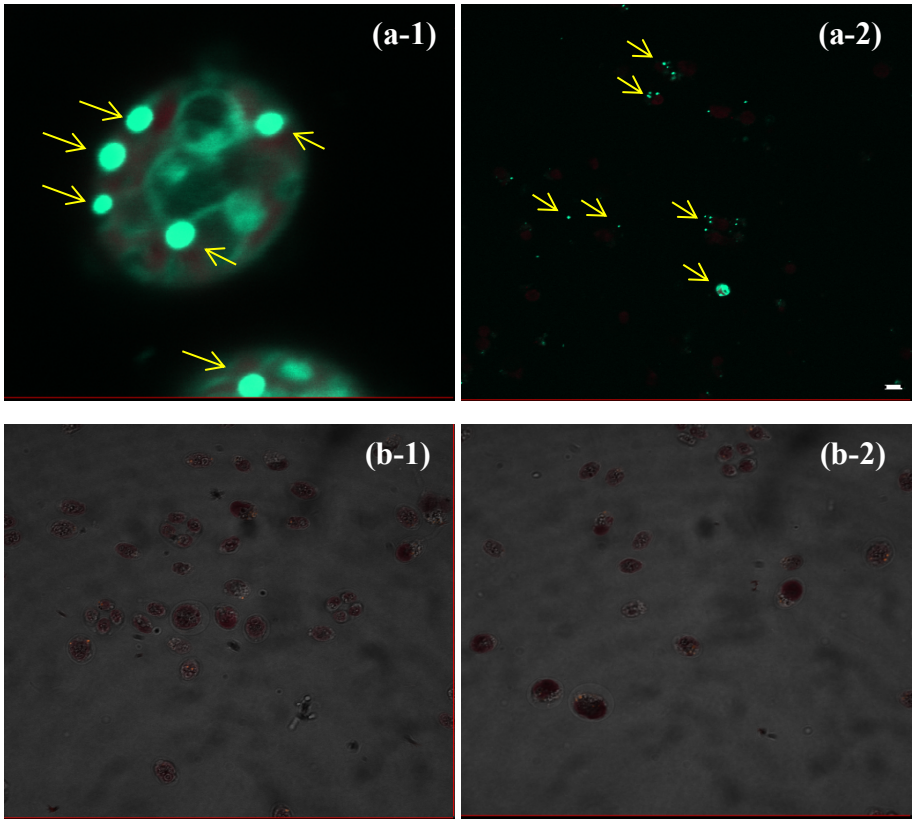
SI. F.1. Growth curve (cell count) for CC124 (●) and the sta6-1(▼) strains, in TAP medium. Each data point represents three replicates.



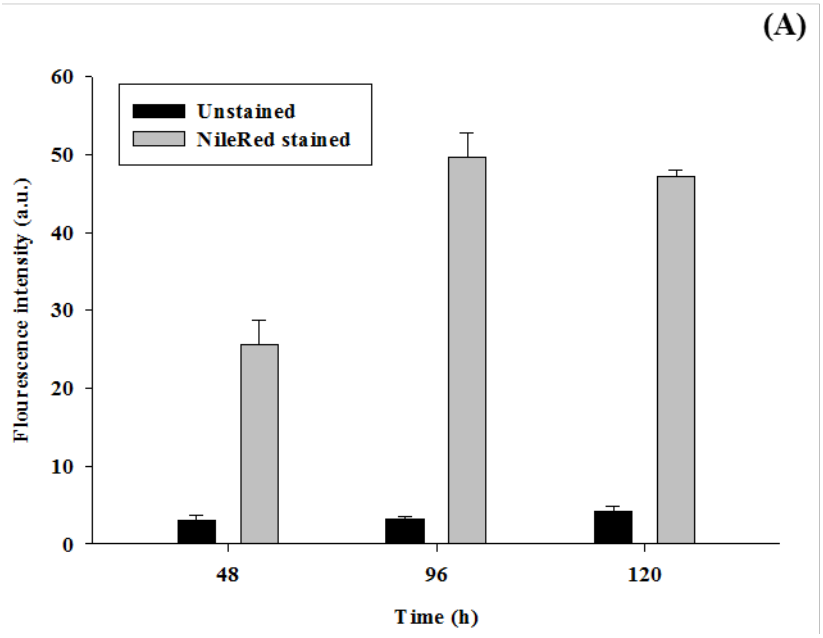
SI. F.2. Fluorescence microscopy images of BODIPY 505/515 (a) and Nile Red (b) stained strains of CC124 (1) and sta6-1 (2) at early stationary phase, arrows indicate lipid droplets.

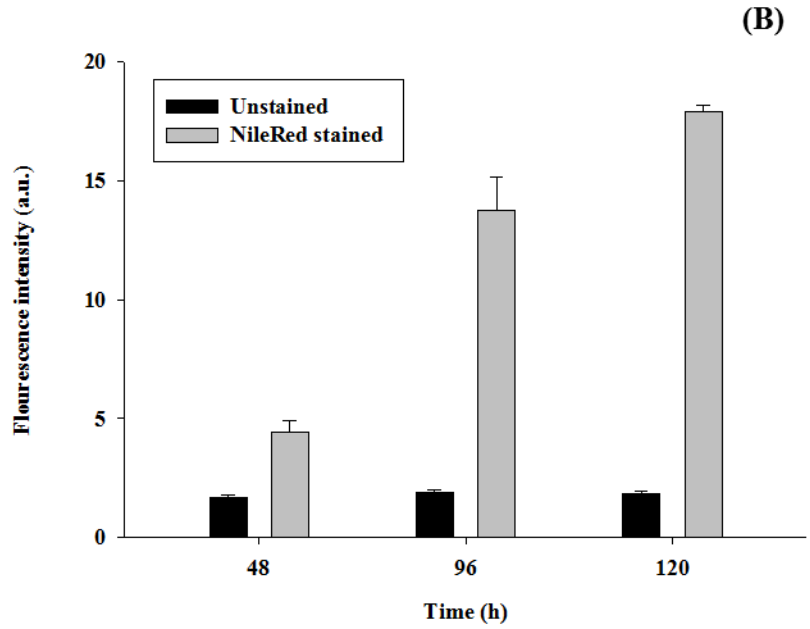


SI. F.3. Confocal images of BODIPY 505/515 (a) and Nile Red (b) stained strains of CC124 (1) and sta6-1 (2) at early stationary phase, arrows indicate lipid droplets.

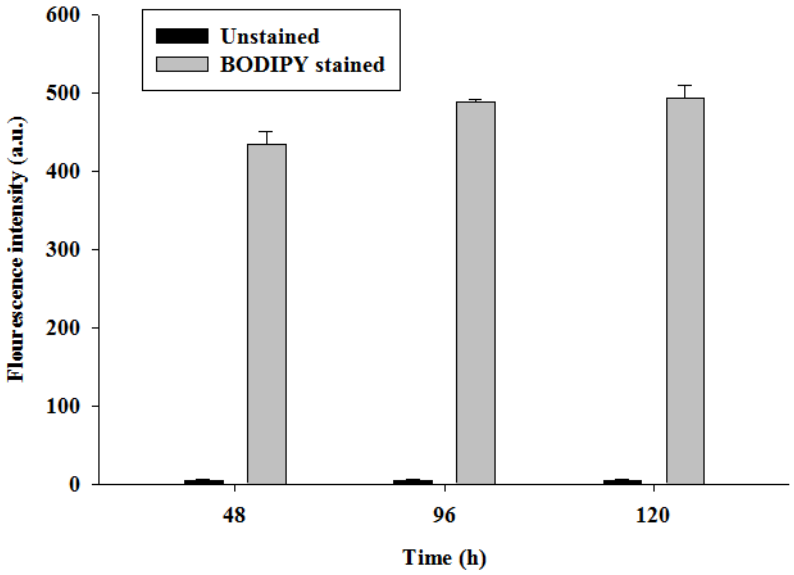


SI. F.4. FACS data - Fluorescence intensity of Nile Red and BODIPY 505/515 stained of strains CC124 (a & c) and sta6 (b & d) at different growth phases. Each data point represents three replicates

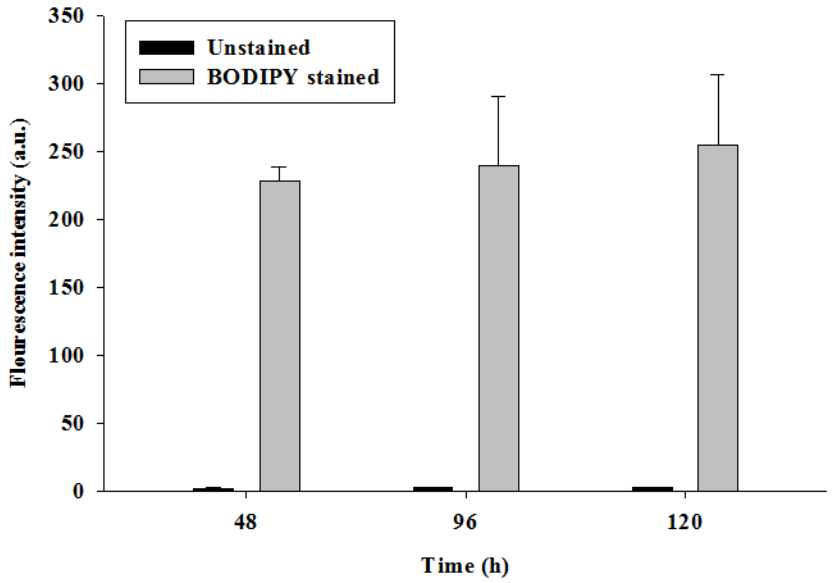




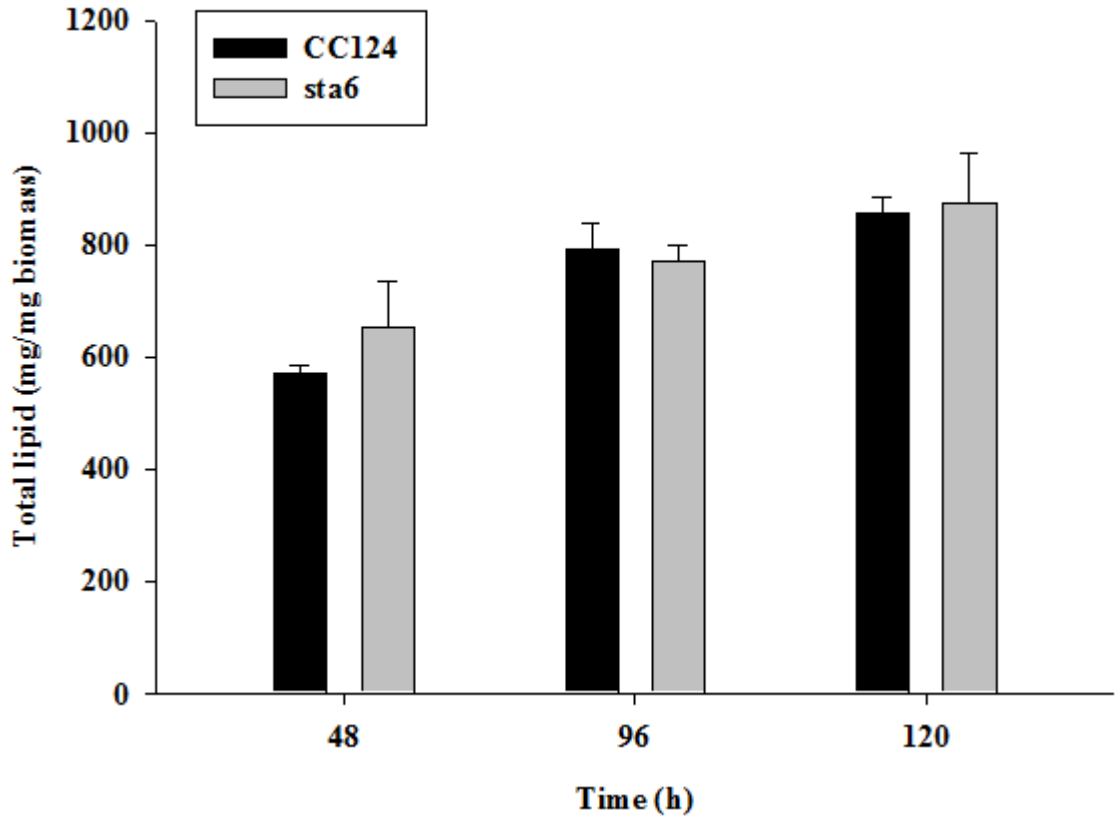
(C)


Unstained
BODIPY stained
Flourescence intensity (a.u.)
600
500
400
300
200
100
0
48
96
120
Time (h)

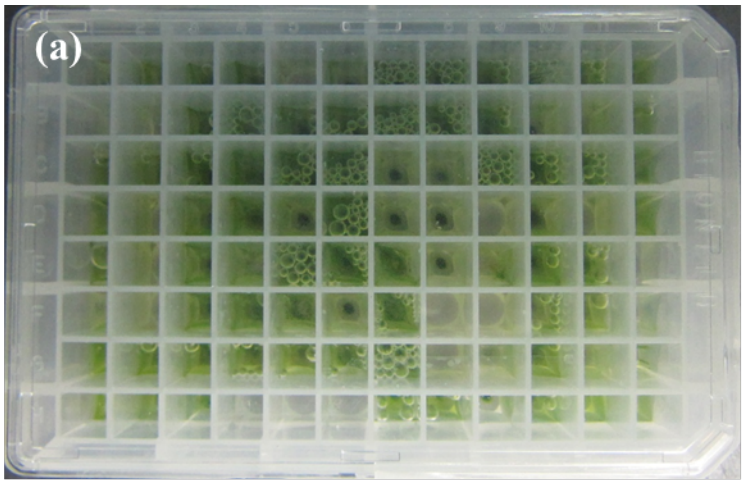
(D)

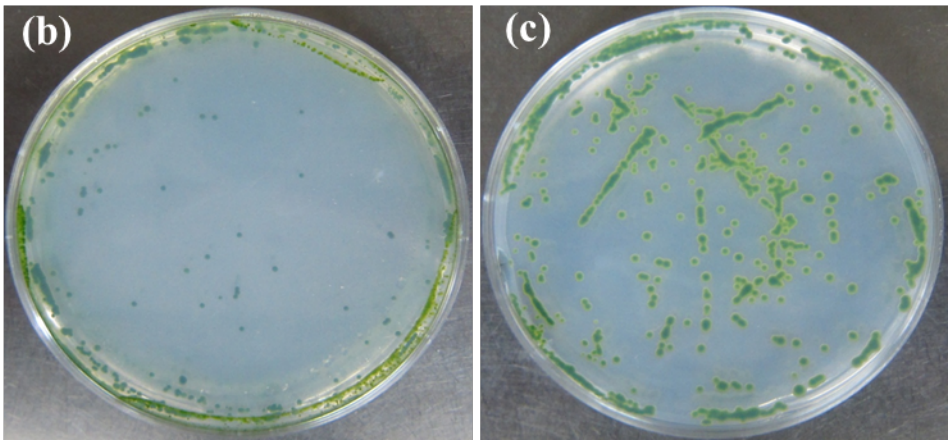

Unstained
BODIPY stained
Flourescence intensity (a.u.)
350
300
250
200
150
100
50
0
48
96
120
Time (h)

SI. F.5. GC quantification of total lipid content of strains CC124 and sta6 at different growth phases. Each data point represents three replicates.



SI. F.6. Flow cytometry sorted single algal cells were able to grow on 96-well plates containing TAP broth (a). Contamination check - TAP agar plates represent the algal growth before (b) and after (c) cell sorting.





SI. F.7. Correlation between Nile Red fluorescence, BODIPY florescence, and GC analysis of wild type CC124 (a) and starchless mutant sta6-1 (b).