Supporting Information for

Potential of lipid biosynthesis under heterotrophy in the marine diatom *Cyclotella cryptica*

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Figure: S1, S2, S3 and S4

FIGURE S1: ^{1}H-NMR spectrum of the supernatant of the culture medium containing 4 gL-1 of glucose, after cell centrifugation. The diagnostic peak, centered at 3.24 ppm, refers to the signal of protons at C-2 of ß-anomer of glucose.

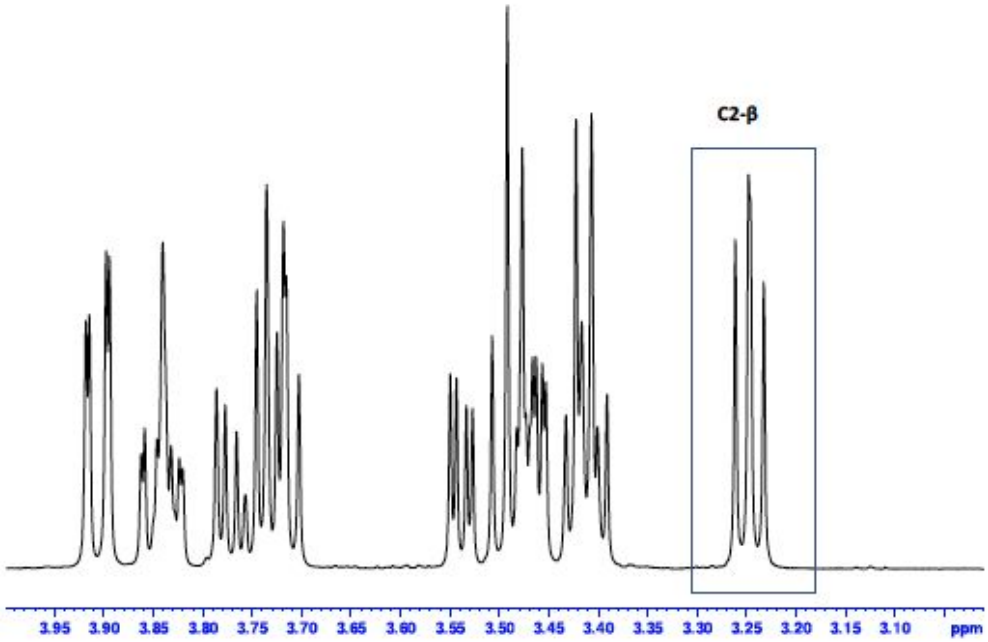

FIGURE S2: Linear regression analysis of lipids against number of cells and biomass at day 7

Variable #1	**Variable #2**	***r***	***r²***	***F sign***	***Equation***
Lipid	Number of Cell	0.94	0.90	0.044	y = 0.0001x – 27.063
Lipid	Biomass	0.97	0.95	3,43E-05	y = 185.63x – 19.672

FIGURE S3: Heterotrophic cultures of *Cyclotella cryptica* in 10L carboys (A).

(A)

FIGURE S4: *Glycerolipid distribution assessed by ^{1}H-NMR at the end of each cycle for the 6 cycles (I-VI) of repeated batch process of C. cryptica under heterotrophic conditions. Results are expressed as percentage of total glycerolipids. TAG triacylglycerides, MGDG monogalactosyldiacylglycerol, DGDG digalactosyldiacylglycerol, SQDG sulfoquinovosyldiacylglycerol, PL phospholipids*
Data are presented as mean ± SD, n = 3