

Figure S1 Flow cytometry plots suggesting the phagocytosis percentage in *Gephyrocapsa huxleyi* diploid calcified strain RCC1266 in light (a, b and c, triplicate samples) and darkness (d, e and f, triplicate samples) at 15°C at the concentration of f/20 medium.

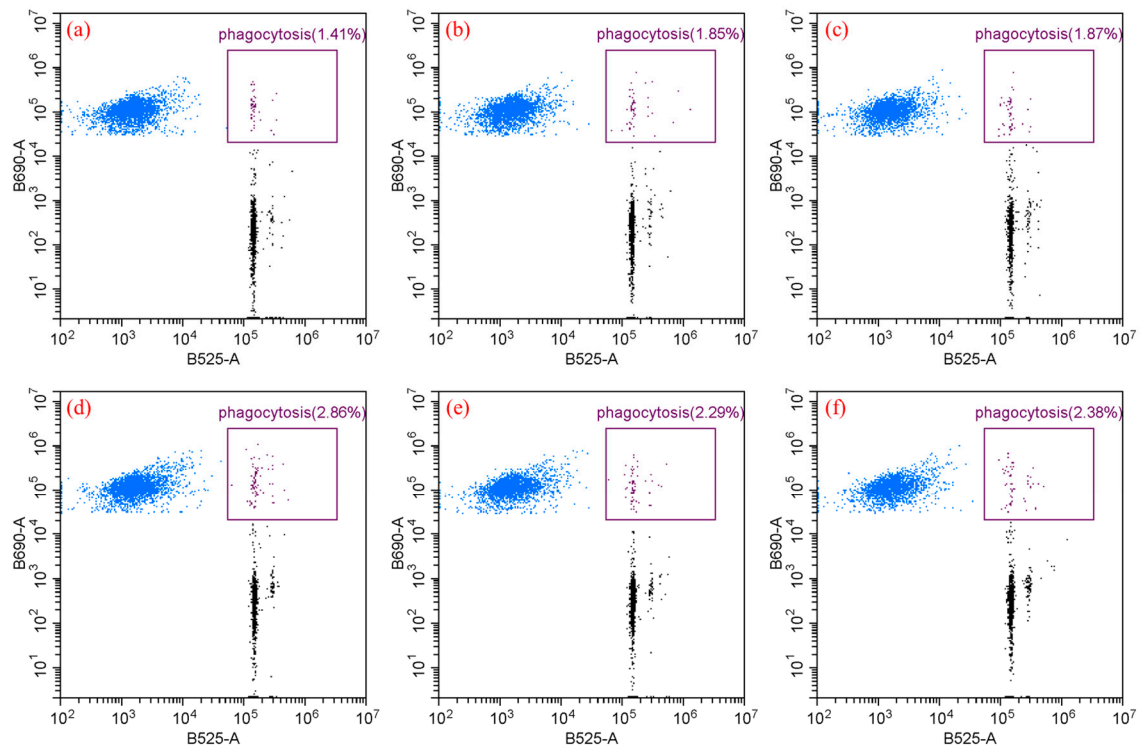


Figure S2 Flow cytometry plots suggesting the phagocytosis percentage in *Gephyrocapsa huxleyi* haploid non-calcified strain PML B92/11 in light (a, b and c, triplicate samples) and darkness (d, e and f, triplicate samples) at

15°C at the concentration of f/20 medium.

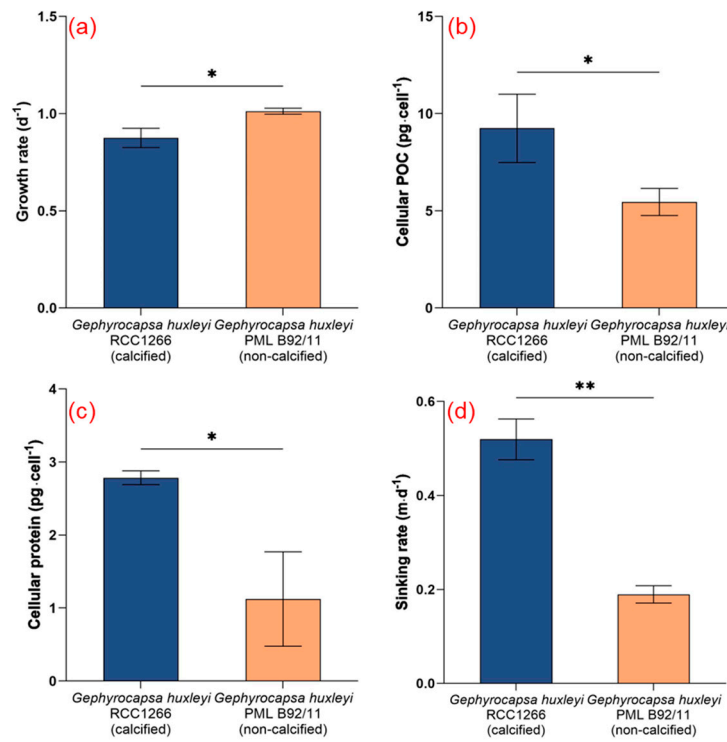


Figure S3 Physiological differences between *Gephyrocapsa huxleyi* diploid calcified strain RCC1266 and haploid non-calcified strain PML B92/11 in growth rate (a), cellular POC (b), cellular protein (c) and sinking rate(d). Replotted from Wang et al. [32]. Significances were determined through t-test. ns:  $p\text{-value} > 0.05$ , \*:  $0.01 < p\text{-value} < 0.05$ , \*\*:  $0.001 < p\text{-value} < 0.01$ , \*\*\*:  $p\text{-value} < 0.001$ .