

Supplementary Information

Figure 1. Optimization of extraction procedure. **(a)** Effect of incubation time on the efficiency of metabolite extraction. Following the addition of 90% methanol and vortex, cells are incubated at 4°C for 30 min or 60 min with shake. The amounts of extracted chlorophyll *a* are determined as an indicator of metabolite extraction. **(b)** Effect of sonication. The samples are sonicated for 3 min after vortex and incubated for 60 min. In both experiments 5.8×10^6 cells are extracted with 2.0 ml of methanol solution. Values are means $\pm$ SEM from 4 technical replicates. Asterisk indicates the condition showed statistically significant difference from vortexed samples by *t*-test ($p < 0.05$).

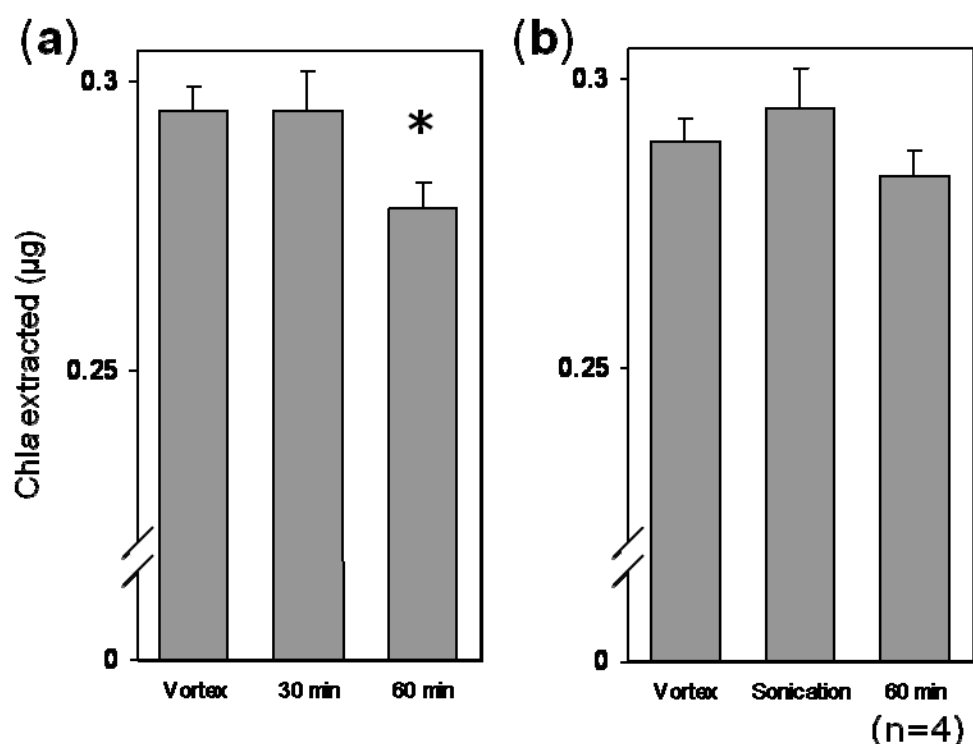


Table 1. Number of metabolite detected from different number of cells.

Cell number ($\times 10^6$ cells)	1.16	2.32	5.80	11.6	23.2
Number of detected metabolites	2	9	17	26	26
Number of overloaded metabolites	0	0	0	0	2