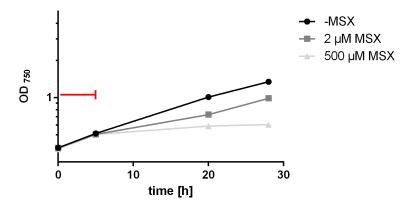
## **Supplementary Materials**

**Table S1.** Oxygen evolution measurement in WT-C 103 cells incubated in BG<sub>0</sub> with nitrate or without nitrogen source supplemented with 2  $\mu$ M MSX for 5h.

<b>Culture conditions</b>	Mean oxygen evolution [nmol/ml/min] with standard deviation
+NO <sub>3</sub> -MSX	$10 \pm 0.4$
$+NO_3 +2 \mu M MSX$	$6.2 \pm 0.1$
$-NO_3 - MSX$	$6.8 \pm 0.3$
$-NO_3 +2 \mu M MSX$	$4.8 \pm 0.3$



**Figure S1.** Effect of different MSX concentrations on growth of *Synechococcus* WT cells. Cells were incubated for 5 hours with MSX as indicated (red bar indicates the time of MSX incubation). Then, the cells were washed twice to completely remove MSX and afterwards, cells were resuspended in standard BG11 medium and incubated under normal growth conditions. At the indicated time points, cell density was determined by OD<sub>750</sub> measurement. This experiment was performed in 3 parallel biological replicates with below 5% standard deviation.