



Supplement Figure S2. PCR analysis of double sigma factor inactivation strains of *Synechocystis* sp. PCC 6803. Genomic DNA was isolated from the control and double inactivation strains. PCR was performed with primers flanking the coding region of the *sigC* gene for the control (lane 2) and  $\Delta$ sigBC (lane 3) strains, with primers flanking the coding region of the *sigD* gene for the control (lane 4) and  $\Delta$ sigBD (lane 5) and  $\Delta$ sigCD (lane 6), with primers flanking the coding region of the *sigE* gene for the control (lane 7) and  $\Delta$ sigBE (lane 8) and  $\Delta$ sigCE (lane 9) and  $\Delta$ sigDE (lane 10) strains. The length of the PCR product is 1018 in lane 2, 3078 in lane 3, 752 bp in lane 4, 2812 bp in lanes 5 and 6, 1110 bp in lane 7 and 3170 bp in lanes 8, 9, and 10. The DNA markers are shown in lanes 1 and 11.