



Supplementary Figure S1. Schematic representation of the *Synechocystis* PCC 6803 *cp12* chromosome locus and construction of the $\Delta cp12::Km^r$ DNA cassette for targeted deletion of the *cp12* gene. The genes are represented by large arrows respectively colored in green for *cp12* (also referred to as *ssl3364* in Cyanobase), red for *Km^r* and grey (*cp12*-surrounding genes designated as *slr1884* and *ssr3188* in Cyanobase). For the sake of clarity, the *cp12*-flanking regions that served as platform of homology for DNA recombination mediating gene replacement are indicated by purple and blue rectangles, respectively.