

Fig. S1. Identification of Psb28 protein in His27PSII. Protein band corresponding to PsbU area in Figure 4 was cut and trypsin digested. MS analysis was performed on a QSTAR XL (AB/MDS Sciex) mass spectrometer. Three Psb28 protein peptide fragments were identified: residues 9-19 (GVAETVVPEVR), 33-43 (FYFLEPTILAK), and 100-112 (GAENGLGFSKSE) of the 112 amino acid residues long Psb28 protein in *Synechocystis* 6803. The b and y ions are labeled.