Supporting Information.

Title. Structure of the Psb27 assembly factor at 1.6 Å: implications for binding to Photosystem II

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Fig.S1 *E. coli* overexpression, purification and His-tag removal of Psb27 from *T. elongatus.*
(A) Crude lysed *E. coli* extract (Pre) was incubated with Ni-IDA resin (Generon, UK) and the flow through (FT) was discarded. After 3 washes (W1, W2 and W3), His_6-Psb27 was eluted twice, with the protein being present only in the first elution step (E1). Soluble protein samples taken at different stages during the Ni-IMAC purification procedure of His_6-Psb27 were loaded onto a 16% (w/v) polyacrylamid (PAA) SDS-PAGE gel along with the BroadRange prestained protein Marker (Fermentas, UK), whose specific sizes are indicated in kilodalton (kDa) on the left (M). The gel was stained with Coomassie. (B) The efficiency of the thrombin treatment to remove the His_6-tag from the His_6-Psb27 protein was assessed by analysing the treated samples onto an 18% PAA SDS-PAGE gel. The digestion was performed at room temperature (RT) or 4°C for 1h or overnight (ON). The gel was Coomassie blue stained.

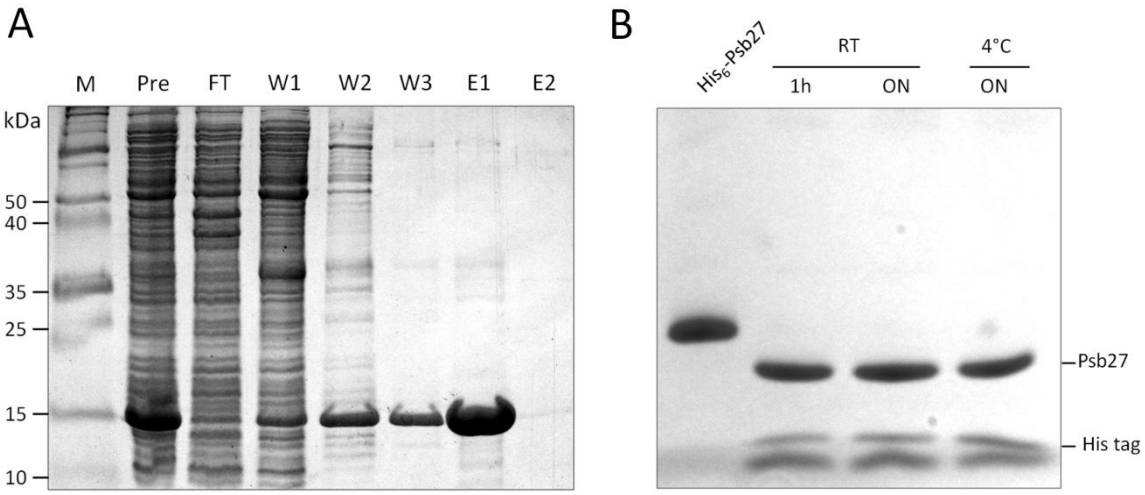

FIGURE S1

Fig.S2 Crystals of Psb27 from *T. elongatus.*

Crystals of Psb27 were obtained using the hanging drop diffusion method in 35% PEG 4000. Crystals were visualised with an optical microscope (model M165C, Leica Microsystems, UK).

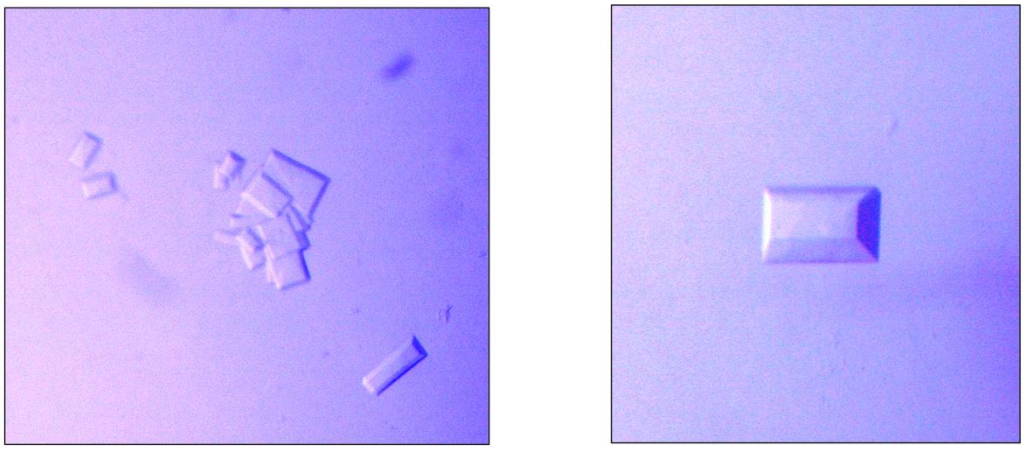

FIGURE S2