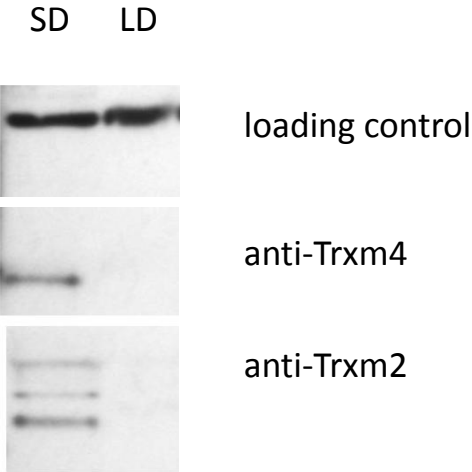


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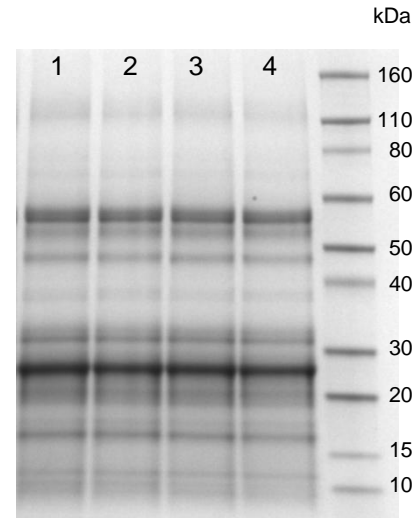
Sup. Fig. 1 Attachment of Trx m2 to thylakoid membranes
Experiments performed as described in Fig. 2 caption.



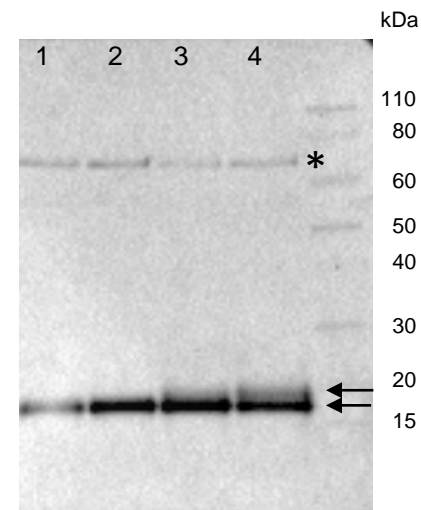
Sup. Fig. 2 PsaF immunodetection in thylakoid membranes

Thylakoid proteins from wt plants grown in SD or LD were treated or not with the reducing chemical TCEP prior to thiol alkylation with AMS. Proteins (equivalent to 2-3 μg chlorophylls) were electrophoresed (SDS-PAGE) and stained with Coomassie blue, or electro-transferred onto a PVDF membrane for immuno-detection of psaF. 1: SD thylakoids untreated; 2: LD thylakoids untreated; 3: SD thylakoids reduced; 4: LD thylakoids reduced. Arrows and asterisk indicate redox variants and unspecific signal, respectively.

Coomassie staining

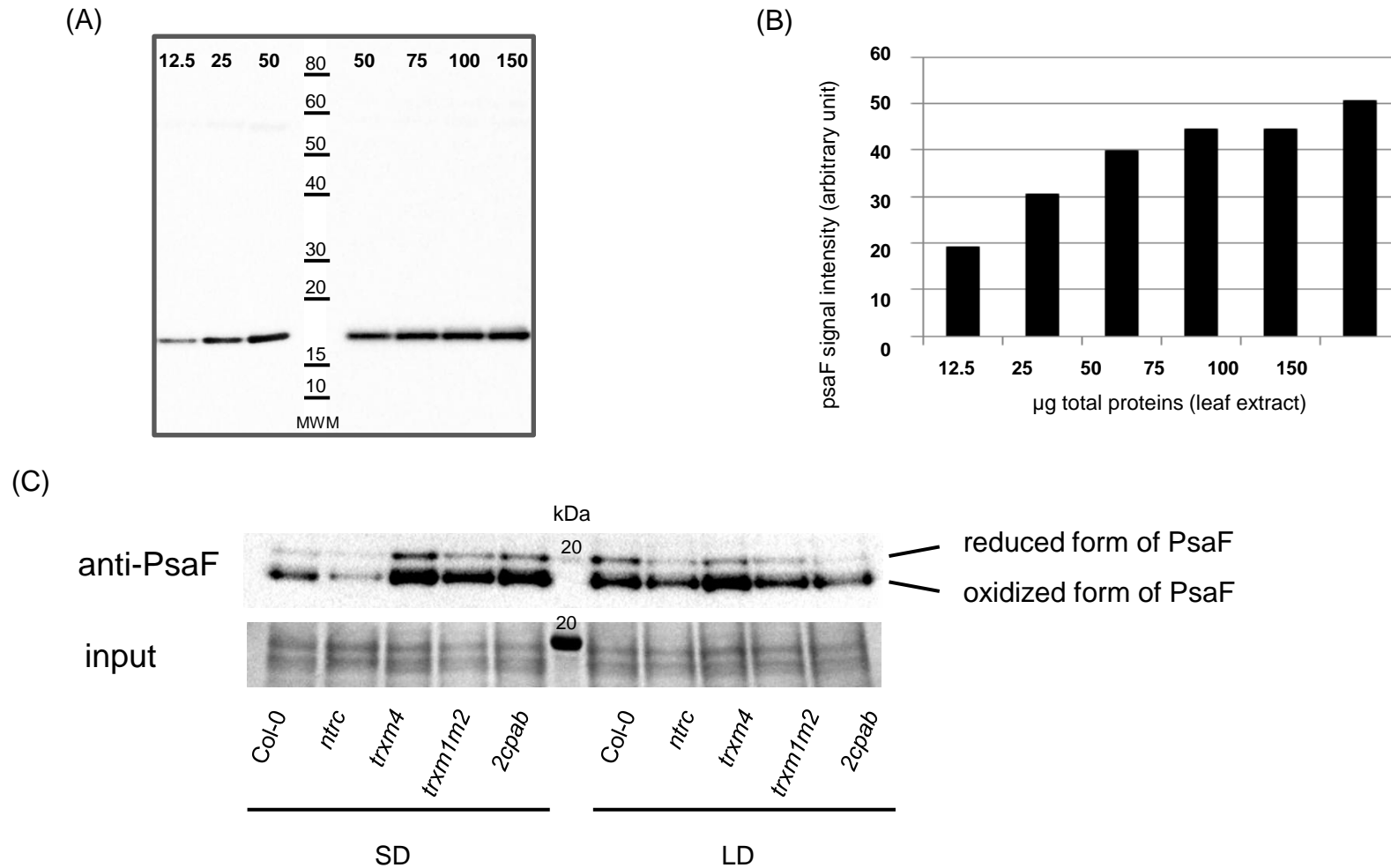


anti-PsaF



Sup. Fig. 3 PsaF immunodetection in total leaf extracts

Total leaf extract of WT plant (Col-0) was prepared in presence of a reducing chemical (TCEP). Various proteins amounts ranging from 12.5 to 150 μg were electrophoresed (SDS-PAGE, reducing condition), and transferred onto a PVDF membrane prior to immuno-detection of *psaF*. The corresponding signal (chemi-luminescence) was quantified using the ImageLab software (BioRad). *psaF* signals were plotted towards the corresponding total protein amounts to generate a calibration curve. (A) Western blot, ECL signal; (B) Densitometry analysis. (C) example of redox western signals. MWM: molecular weight marker (kDa).



Sup. Fig. 4 Reduction tests of Trxs m by NTRC *in vitro*

Thiols were spectrophotometrically followed by the reduction of the thiol reagent DTNB. NADPH (150 μM) and NTRC (20 nM) were mixed and then TRX (10 μM) added. Kinetics were started with addition of DTNB (1 mM). Delta $\text{OD}_{412\text{nm}}$ rates per min are shown. TRX m4 was used for control experiments (NADPH+TRX and NTRC+TRX).

