

Genotype	Average	Stdev
WT D	13	5
WT LL	100	0
WT HL	6	7

<i>tap38</i> D	227	193
<i>tap38</i> LL	100	0
<i>tap38</i> HL	43	18

<i>psal</i> D	73	11
<i>psal</i> LL	100	0
<i>psal</i> HL	35	6

	1st biol replic.	2nd biol replic.	3rd biol replic.
WT D	107251	7570490	47168
WT LL	586053	89084888	403646
WT HL	8234	1074011	56675

<i>tap38</i> D	444551	100798032	496054
<i>tap38</i> LL	377343	22377728	428270
<i>tap38</i> HL	238212	14310813	140081

<i>psal</i> D	575781	239984176	750936
<i>psal</i> LL	685341	381439008	1052914
<i>psal</i> HL	283139	125370392	318132

Table S1. The changes in the level of LHCII phosphorylation within WT, *tap38* and *psal* upon short-term light shifts. The pLHCII level in each genotype is compared to the level observed in LL.

WT, *tap38* and *psal* mutants were adapted to darkness for 16 hours and subsequently exposed to low light for 2.5 hours and eventually to high light for another 2.5 hours. Thylakoids were isolated after each light treatment and fractionated with SDS-PAGE. The accumulation of pLHCII was demonstrated with a P-Thr antibody and the relative changes in the phosphorylation level of LHCII within WT, *tap3* and *psal* were quantified by normalizing the band intensities to the low light sample of each genotype. The average and standard deviation of the normalized data from three biological replicates is presented. The raw volumes of the pLHCII band intensities are also included.