



**Supplemental Figure S1.** Effects of blue light (BL) irradiation on the localization of phot1 proteins. Dark-grown *phot1* transgenic plants harboring *35S::PHOT1-GFP* were irradiated with continuous BL at  $0.2 \mu\text{mol m}^{-2} \text{s}^{-1}$ . Green fluorescent protein signals were observed with a microscope at the indicated time after the onset of BL irradiation. White bar, 50  $\mu\text{m}$ .

## Supplemental Methods

### Cloning of 35S::PHOT1-GFP

For construction of 35S::PHOT1-GFP, the coding region of *PHOT1* amplified using PCR was inserted in frame at the *Bam*HI site upstream of GFP in the pTH2 vector (Niwa, 2003). The vector digested with *Hind*III and *Eco*RI was subcloned into the binary vector pPZP211 (Hajdukiewicz et al., 1994). The constructs were transformed into the *phot1-101* mutant (Landsberg *erecta* background) via the floral dipping *Agrobacterium tumefaciens*-mediated transformation method as described previously (Clough and Bent, 1998).

### Supplemental Literature Cited

- Clough SJ, Bent AF** (1998) Floral dip: a simplified method for *Agrobacterium*-mediated transformation of *Arabidopsis thaliana*. *Plant J* **16**: 735–743
- Hajdukiewicz P, Svab Z, Maliga P** (1994) The small, versatile *pPZP* family of *Agrobacterium* binary vectors for plant transformation. *Plant Mol Biol* **25**: 989–994
- Niwa Y** (2003) A synthetic green fluorescent protein gene for plant biotechnology. *Plant Biotech* **20**: 1–11

**Supplemental Table S1.** Gene-specific primers used for genotyping

Gene	Forward Primer	Reverse Primer
<i>pid-14</i> <sup>a</sup>	ATGTTACGAGAATCAGACGGTG	TCAAAGTAATCGAACGCCGCTGG
<i>wag1</i> <sup>b</sup>	ATGGAAGACGACGGTTATTACC	GGAGAAACAACCGCCACCACG
<i>wag2</i> <sup>b</sup>	CTCCGCAGCAACGGAGAAGCAAC	GAACTCTCTGCCTCAAAGACACAC
<i>pid2</i> <sup>c</sup>	CGCAGCAGAAACTCTAGTG	CGTCCATAATAATCACATGGACCTC

Sequences are 5' to 3'.

<sup>a</sup> JMLB1: GGCAATCAGCTGTTGCCCGTCTCACTGGTG

<sup>b</sup> En-transposon-205: CACGACGGCTGTAGAATAGGA

<sup>c</sup> SAIL-LB1: GCCTTTTCAGAAATGGATAAATAGCCTTGCTTCC

**Supplemental Table S2.** Primers used for cloning of *35S::PHOT1-GFP*, *PIN3::PIN3-VENUS* and *PIN7::PIN7-VENUS*

Primer	Sequence
PIN3B1FW	GGGGACAAGTTTGTACAAAAAAGCAGGCTAGCTGACATATGAAGTGCTTCC
PIN7B1FW	GGGGACAAGTTTGTACAAAAAAGCAGGCTCATCTCGTTGGATTGAAGAATGC
PIN3B4RV	GGGGACAACTTTGTATAGAAAAGTTGGGTGTGAAGCGTTGGATTTTCTCACG
PIN7B4RV	GGGGACAACTTTGTATAGAAAAGTTGGGTGAGAAGCGTTTGGATTTTCTCACCG
PIN3B3FW	GGGGACAACTTTGTATAATAAAGTTGGAAGAAGGTCTCACTGCGGC
PIN7B3FW	GGGGACAACTTTGTATAATAAAGTTGGACGGAGATCTTTTACGGTGGTGGT
PIN3B2RV	GGGGACCACTTTGTACAAGAAAGCTGGGTACAGTAAAGCCACCAATTTGATCAC
PIN7B2RV	GGGGACCACTTTGTACAAGAAAGCTGGGTATACAAGCGTTTTTGGATCCTC
YFPB4rFW	GGGGACAACTTTTCTATACAAAGTTGGAGGTGGAGCTGGAGGTGCAATGGTGAGCAAGGGCGAGGA
YFPB3rRV	GGGGACAACTTTATTATACAAAGTTGTAGCATAATCTGGAACATCATATGGATATGCCATGGCCTTGTACAGCTCGTCCATGC
PHOT1FW	CAAGGATCCAAGATGGAACCAACAGAAAAACCA
PHOT1RV	CATGGATCCAACATTTGTTTGCAGATCTTCTAGCT

Sequences are 5' to 3'.