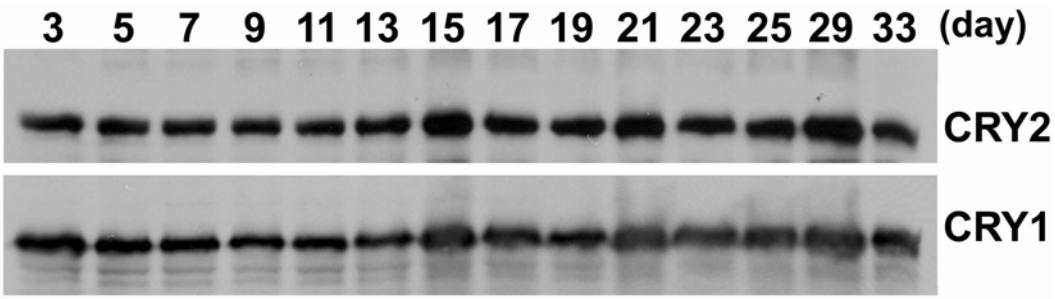
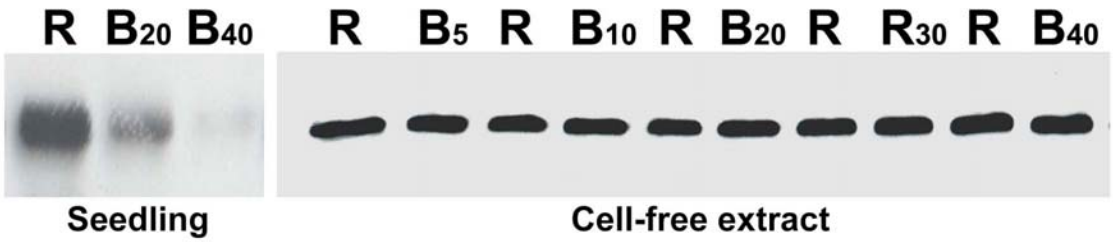
Supplemental Figures. Yu et al. (2007). Arabidopsis cryptochrome 2 completes its post-translational "life cycle" in the nucleus.

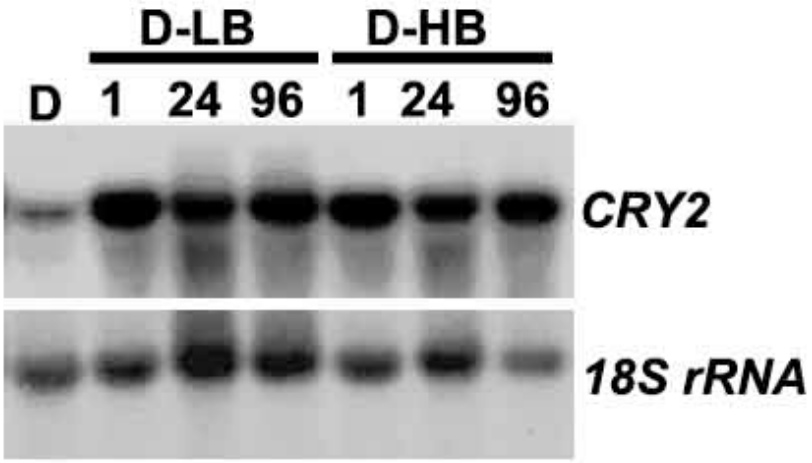


Supplemental Fig. 1. Immunoblot showing CRY1 and CRY2 protein levels in plants grown in continuous white light for 3 to 33 days.



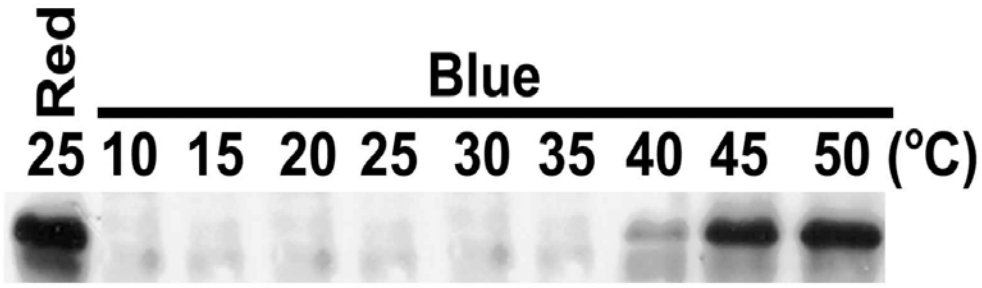
Supplemental Fig. 2. CRY2 is not degraded in the cell-free extract in response to blue light

Left panel: immunoblot showing blue light-dependent CRY2 degradation in vivo. Seedlings grown in red light were exposed to blue light (30 μmole m^{-2} s^{-1}) for 20 or 40 min. Right panel: cell-free extract was prepared using CelLytic Plant Nuclei Isolation/Extraction Kit (Sigma) under red light. The cell-free extract was exposed to blue light (30 μmole m^{-2} s^{-1}) for 5 to 40 mins. Proteins were extracted and immunoblot analyzed by the anti-CRY2 antibody.



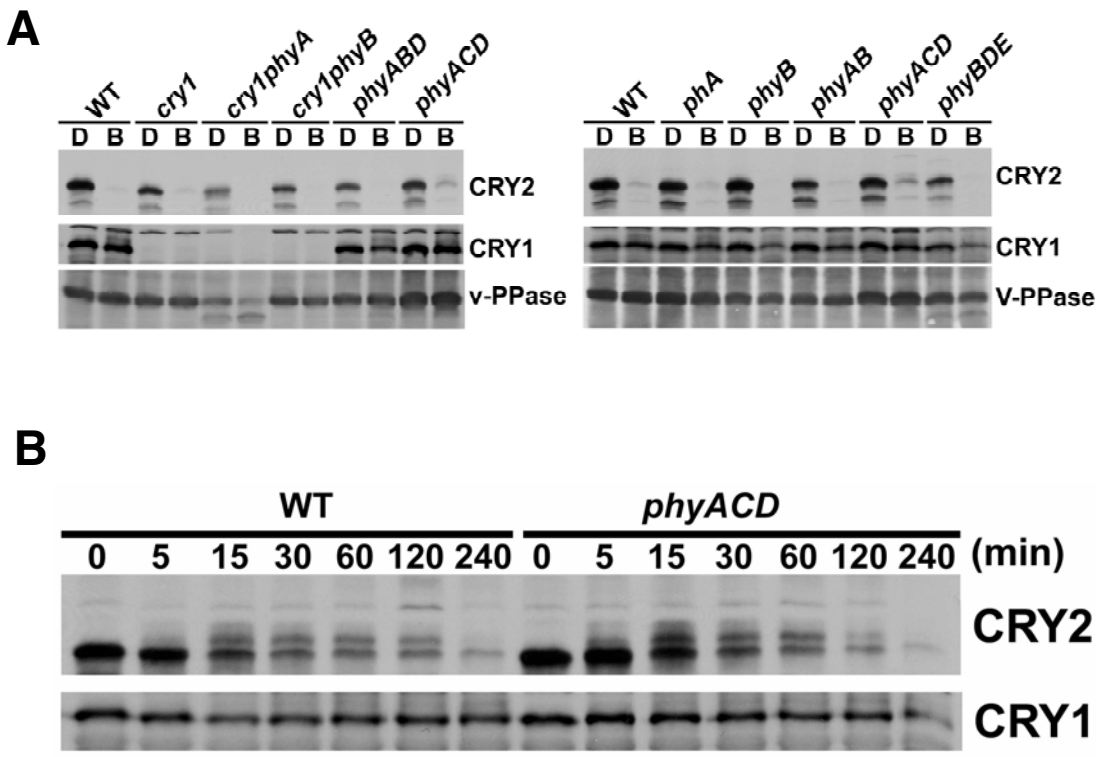
Supplemental Fig. 3. Northern blot showing CRY2 mRNA expression is not suppressed by blue light

Etiolated WT seedlings were exposed to blue light with low (D-LB, 5 μmole $m^{-2}s^{-1}$) or high (D-HB, 50 μmole m^{-2} s^{-1}) fluence rates for 1, 24, or 96hr. RNA was isolated and the blot was probed with the *CRY2* cDNA.



Supplemental Fig. 4. Immunoblot showing the temperature dependence of blue light-dependent CRY2 degradation

7-day-old seedlings grown in red light were excised and floated on water baths kept at the temperature indicated under blue light (30 μmole m^{-2} s^{-1}) for 2 hours. Proteins were extracted and immunoblot analyzed by anti-CRY2 antibody.



Supplemental Fig. 5. Immunoblots showing blue light-induced CRY2 degradation does not require CRY1 or phytochromes tested

Seedlings of WT, *cry1*, *cry1phyA*, *cry1phyB, phyABD*, *phyBDE*, and *phyACD*, were grown in the dark for 5 days and samples were harvested before or after exposure to blue light (15 μmole m^{-2} s^{-1}) for 2 hours (A). The slightly reduced CRY2 degradation in the *phyACD* mutant shown in (A) was probably due to unequal loadings. Because no significant difference in the CRY2 degradation was found between WT and *phyACD* in a time-course experiment (B), in which CRY2 in etiolated seedlings exposed to blue light for up to 240 minutes showed similar extent of degradation in the two genotypes throughout the time period tested.