Supplemental Figure 1. Correlation between levels of *TOC1* mRNA and circadian phenotypes in different *TOC1* RNAi lines.

(A) *TOC1* mRNA levels of expression in WT and in *TOC1* RNAi lines. Plants were maintained in 12h:12h LD cycles for 12 days before collecting the samples at ZT 7 and 11. Total RNA was extracted, blotted and hybridized as described (Alabadí et al., 2001; Somers et al., 2000). rRNA levels served as loading control.

(B) Analysis of mRNA levels of the different members of the *TOC1* family in WT and *TOC1* RNAi (line 65) plants. The plants were maintained in 12h:12h LD cycles for 6 days before samples were harvested every 4 hours during one LD cycle. RNA was extracted and subjected to reverse transcription reaction (see Methods for details). 2 µl of the cDNAs from each time point were combined in one tube and used for PCR amplification using specific primers for each member of the *TOC1* family as previously described (Makino et al., 2002). Samples were blotted and hybridized as previously described (Alabadí et al 2001; Somers et al.2000). Ubiquitin (UBQ) levels were used as control. T-R65: *TOC1* RNAi line 65.

(C and D) Period estimates for individual WT and *TOC1* RNAi bioluminescence traces of *CCR2::luc* expression at 20 µmol m^{-2} s^{-1} of red (C) and blue (D) light. Period estimates were analyzed by the FFT-NLLS best fit algorithm as described (Millar et al., 1995b; Plautz et al., 1997). Relative amplitude error values above 0.7 represent very altered circadian rhythms (Dowson-Day and Millar, 1999).

(E-H) Bioluminescence analysis of *CCR2::luc* expression in WT and several *TOC1* RNAi plants that were grown in 12h:12h LD cycles for 6 days before being transferred to DD. Traces represent averages of 10-20 seedlings per line.

Supplemental Figure 2. Effects of monochromatic red light (RL) on circadian gene expression in WT, *TOC1* RNAi and *toc1-2* plants.

Bioluminescence analysis of *CCR2::luc* (A, C, and E) and *CAB2::luc* (B, D, and F) expression at 1 μmol m^{-2} s^{-1} (A and B), 10 μmol m^{-2} s^{-1} (C and D), and 40 μmol m^{-2} s^{-1} (E and F) of constant RL. Seedlings were grown in 12h:12h LD cycles for 6 days before being transferred to continuous light. Traces represent averages of 10-15 seedlings per line.

Supplemental Figure 3. Inhibition of hypocotyl extension under continuous red light (25 μmol m^{-2} s^{-1}) and in the dark.

Seedlings were stratified in the dark at 4°C for 4 days, held in white light (50 μmol $m^{-2}s^{-1}$) for 6h and maintained in the dark for 18h previous to exposure under red light (25 μmol m^{-2} s^{-1}) for 5 days. As control, seedlings were maintained in constant darkness without light treatment (dark). Col, Columbia; Ws, Wassilewskija.