SUPPLEMENTAL MATERIALS **Serikawa et al.**

Supplemental Table S1. Primer sequences for the RNAi constructs.

Supplemental Figure S1. Structure of the effector constructs. The overexpression and RNAi constructs are shown at the top and bottom for each clock-relate gene, respectively. The black box in each overexpression construct shows the region used to design the RNAi construct. The number below the box represents the location (in bp) in the coding region. Arrowheads indicate the orientation of each gene or gene fragment. Accession numbers for *LgLHYH1*, *LgLHYH2*, *LgGIH1*, and *LgELF3H1* are AB210849, AB210850, AB210848, and AB210851, respectively.

Supplemental Figure S2. Effects of the knockdown of the four *Lemna* clock-related genes and of *LgELF3H1* overexpression on *ZmUBQ*-promoter activity. Experimental procedures for the cotransfection assay using the *ZmUBQ1::luc* reporter (Miwa et al., 2006) are the same as described in Fig. 1. Solid and gray circles indicate the bioluminescence profiles of the reporter with the RNAi construct (denoted in each panel) and the control vector, respectively. The cotransfection assays were repeated at least three times for each reporter. Data are representative of the independent experiments.

Supplemental Figure S3. Suppression of the effects of *LgLHYH2* overexpression by *LgLHYH2*-RNAi knockdown. The bioluminescent traces for the *AtCCA1::luc* reporter with the *LgLHYH2* overexpression construct (A), the *LgLHYH2*-RNAi construct (B), and both the overexpression and RNAi constructs (C) are denoted with black circles. In panel C, the traces for the overexpression or RNAi construct are superimposed (gray circles). Experimental procedures are the same as described in Fig. 1. The cotransfection assays were repeated at least six times for each reporter. Data are representative of the independent experiments.

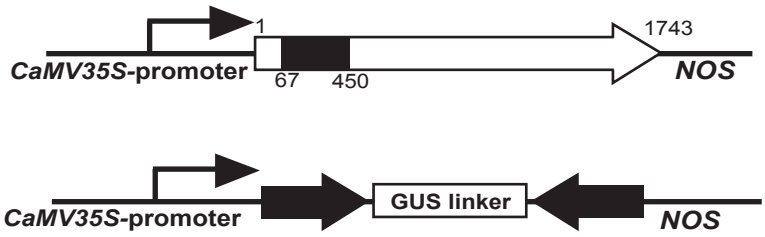
Supplemental Figure S4. Double RNAi experiments for *LgLHYH1* and *LgLHYH2*. *AtCCA1::luc* and *AtPRR1::luc* expression patterns under LL conditions are shown (A: *AtCCA1::luc*, B: *AtPRR1::luc*). The *LgLHYH1*-RNAi or *LgLHYH2*-RNAi construct was introduced together with each reporter and the bioluminescence traces are shown as blue symbols or red symbols, relatively. And both the *LgLHYH1*-RNAi and *LgLHYH2*-RNAi constructs were introduced together with each reporter and the bioluminescence traces are shown as black symbols. Experimental procedures are the same as described in Fig. 1. The cotransfection assays were repeated at least three times for each reporter. Data are representative of the independent experiments.

Supplemental Figure S5. Procedures for the construction of RNAi vectors using MultiSite Gateway technology. Details are provided in the Materials and Methods.

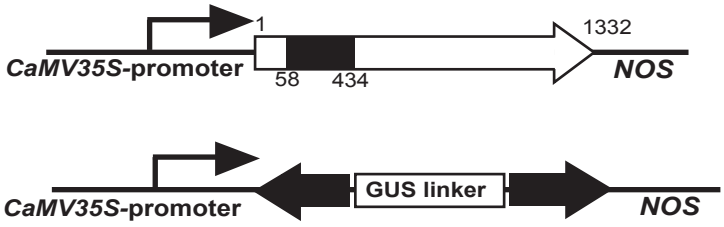
Supplemental Table S1. Primer sequences for the RNAi constructs

Target	Primer Name	Primer Sequence
LgLHYH1	LgLHYH1 5'-f	GGGGACAACTTTGTATAGAAAAGTTGCGAGAGAAGTGGACCGAG
	LgLHYH1 5'-rv	GGGGACTGCTTTTTTGTACAAACTTGCTCGGGAGAAGAATCGACG
	LgLHYH1 3'-f	GGGGACAGCTTTCTTGTACAAAGTGGCTCGGGAGAAGAATCGACG
	LgLHYH1 3'-rv	GGGGACAACTTTGTATAATAAAGTTGCGAGAGAAGTGGACCGAG
LgLHYH2	LgLHYH2 5'-f	GGGGACAACTTTGTATAGAAAAGTTGTCCGAACTGGGCTTTGTCG
	LgLHYH2 5'-rv	GGGGACTGCTTTTTTGTACAAACTTGATAACGAAGCAGCGGGAA
	LgLHYH2 3'-f	GGGGACAGCTTTCTTGTACAAAGTGGATAACGAAGCAGCGGGAA
	LgLHYH2 3'-rv	GGGGACAACTTTGTATAATAAAGTTGTCCGAACTGGGCTTTGTCG
LgGIH1	LgGIH1 5'-f	GGGGACAACTTTGTATAGAAAAGTTGACAGGCACAAACGACGGC
	LgGIH1 5'-rv	GGGGACTGCTTTTTTGTACAAACTTGCTCCGGCTTTCCTCCTCG
	LgGIH1 3'-f	GGGGACAGCTTTCTTGTACAAAGTGGCTCCGGCTTTCCTCCTCG
	LgGIH1 3'-rv	GGGGACAACTTTGTATAATAAAGTTGACAGGCACAAACGACGGC
LgELF3H1	LgELF3H1 5'-f	GGGGACAACTTTGTATAGAAAAGTTGCCGTGACGATGCTTTCGGTGAAGGA
	LgELF3H1 5'-rv	GGGGACTGCTTTTTTGTACAAACTTGGACGGCTACGCTTTGCTGTCTGACATGGC
	LgELF3H1 3'-f	GGGGACAGCTTTCTTGTACAAAGTGGACGGCTACGCTTTGCTGTCTGACATGGC
	LgELF3H1 3'-rv	GGGGACAACTTTGTATAATAAAGTTGCCGTGACGATGCTTTCGGTGAAGGA

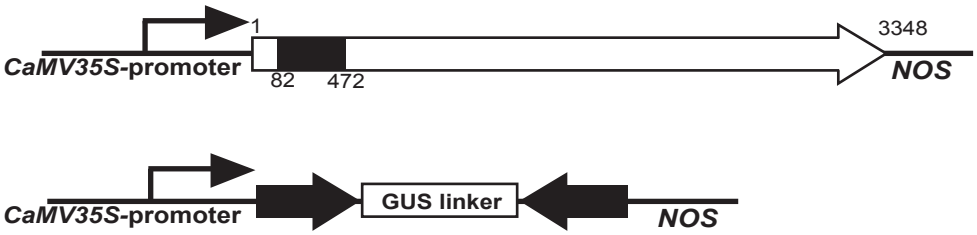
***LgLHYH1* Effectors**



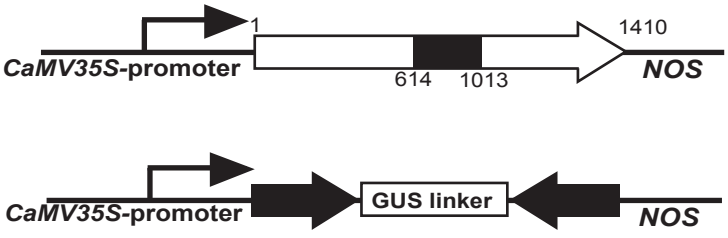
***LgLHYH2* Effectors**



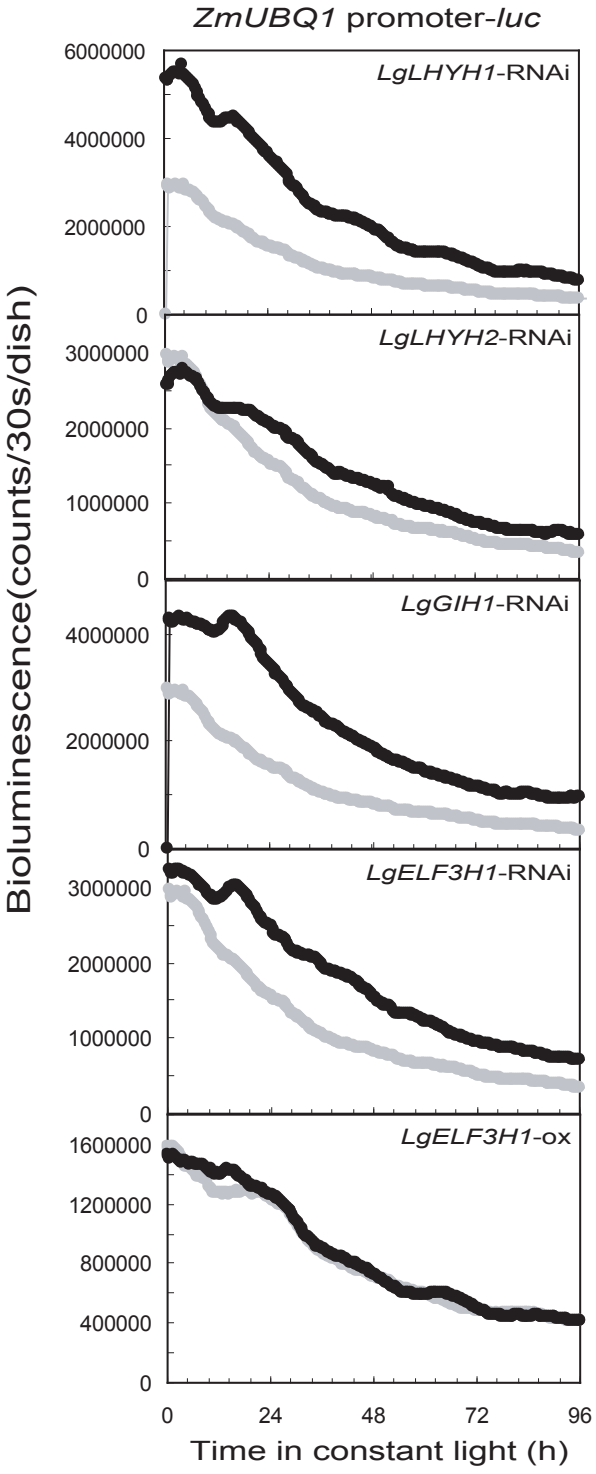
***LgGIH1* Effectors**



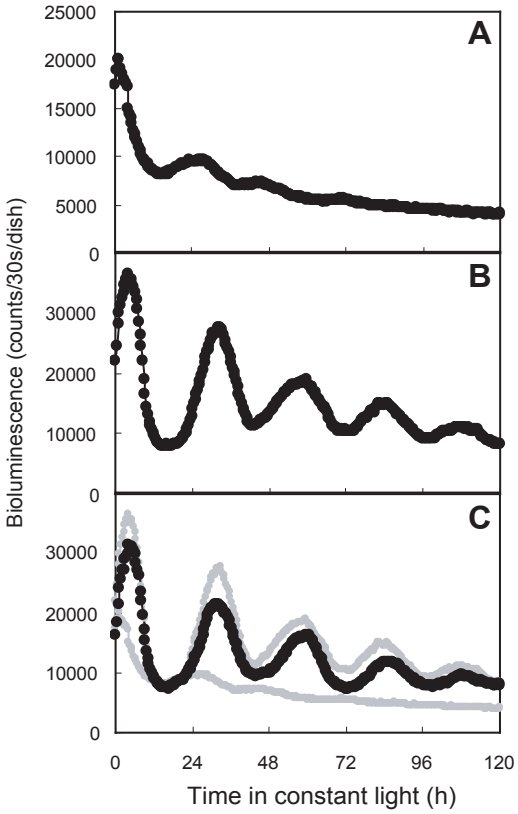
***LgELF3H1* Effectors**



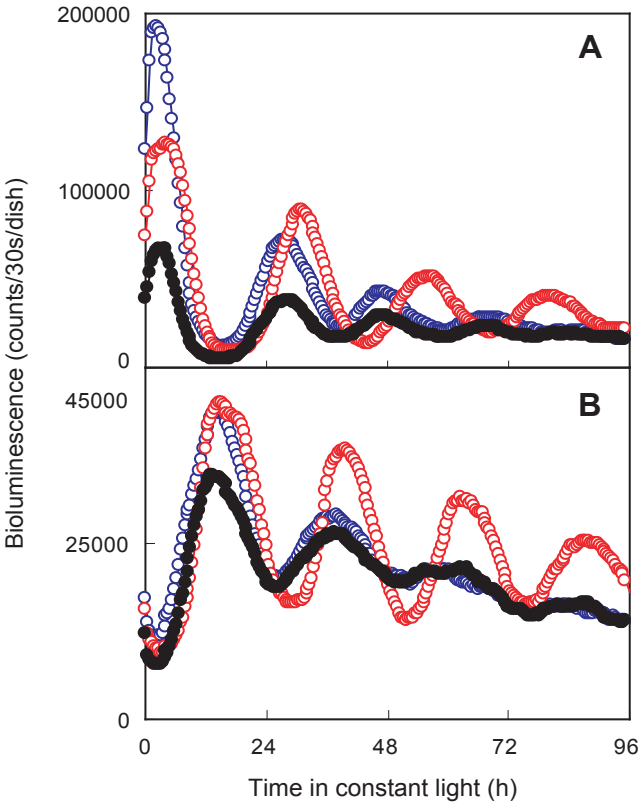
Supplemental FigureS1 Serikawa et al.



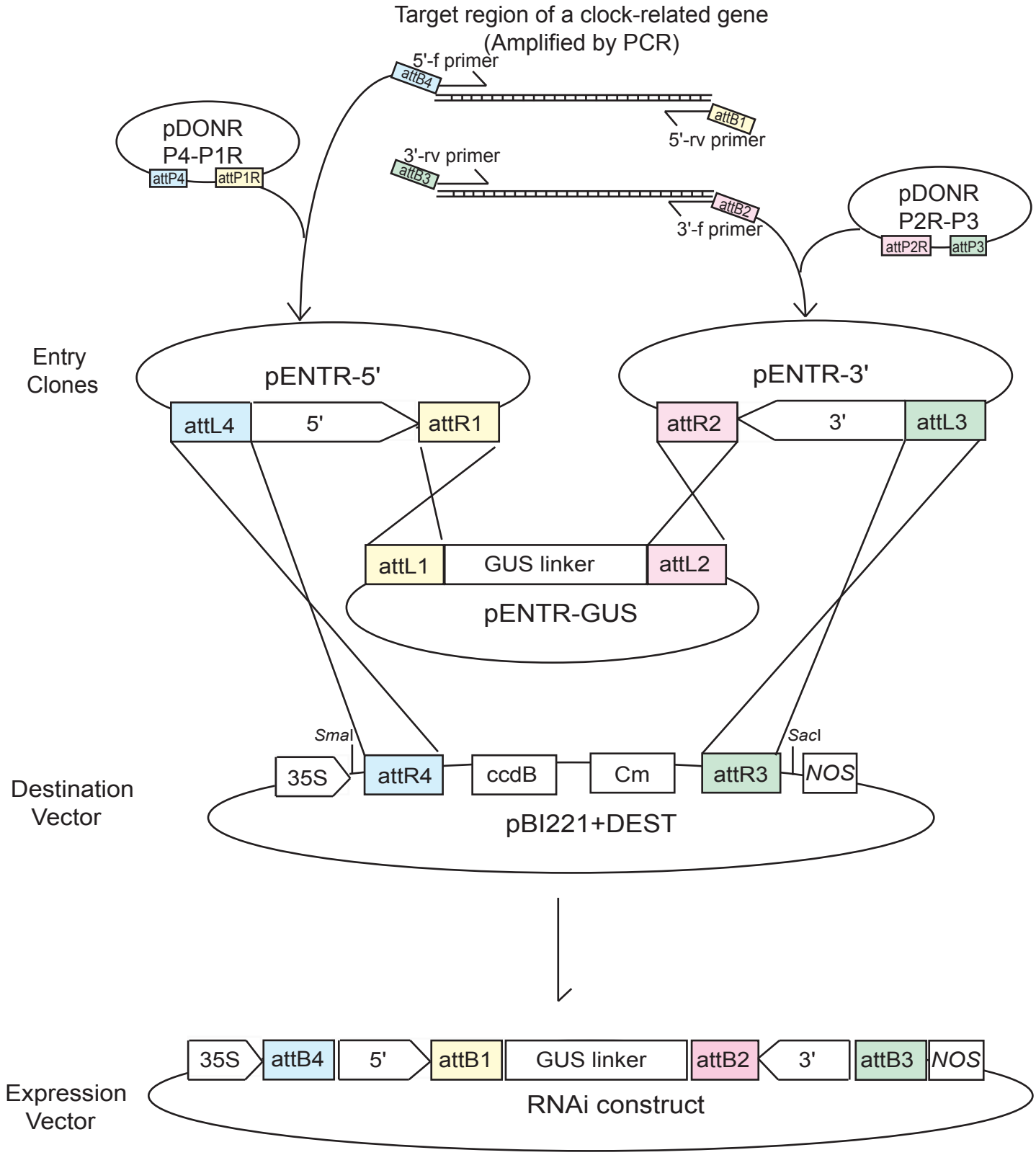
Supplemental Figure S2 Serikawa et al.



Supplemental Figure S3 Serikawa et al.



Supplemental Figure S4 Serikawa et al.



Supplemental figure S5 Serikawa et al.