

Figure S1. Locomotor activity records. Locomotor activity was monitored as described previously (36). Mice at the age of 8-10 weeks old were individually housed in cages equipped with a running wheel in 12 hr light/12 hr dark cycle for 2 weeks and then transferred to constant darkness. Activity data were recorded continuously by using CLOCKLAB software and analyzed by using MATLAB software. Representative activity records (actograms) are shown in the double-plotted format. The arrow indicated the start of 12 hr light/12 hr dark cycle (LD) and the start of constant dark cycle (DD). Black bar indicates the subjective night and the empty bar indicates the subjective day.

Figure S2. Knockout of the *MyoD* CE does not affect phase or amplitude of PER2::LUC expression in skeletal muscle. (A) Luminescence recording from wild-type PER2::LUC soleus muscles. The data for the graphs represent the mean values +/- SEM of raw data for five animals. (B) Luminescence recording from CE<sup>loxP/loxP</sup> X PER2::LUC soleus muscles. The data for the graphs represent the mean values +/- SEM of raw data for five animals.

Figure S2. Sequence alignment of the MyoD CE across the mouse, rat and human. There are four canonical E-boxes (E1, E2, E3, E4) and one non-canonical E-box. The E-boxes are numbered from upstream to downstream. Underlined sequences indicate an E-box. # indicates the non-canonical E Box. Conserved nucleotides are indicated by an asterisk.

Figure S1

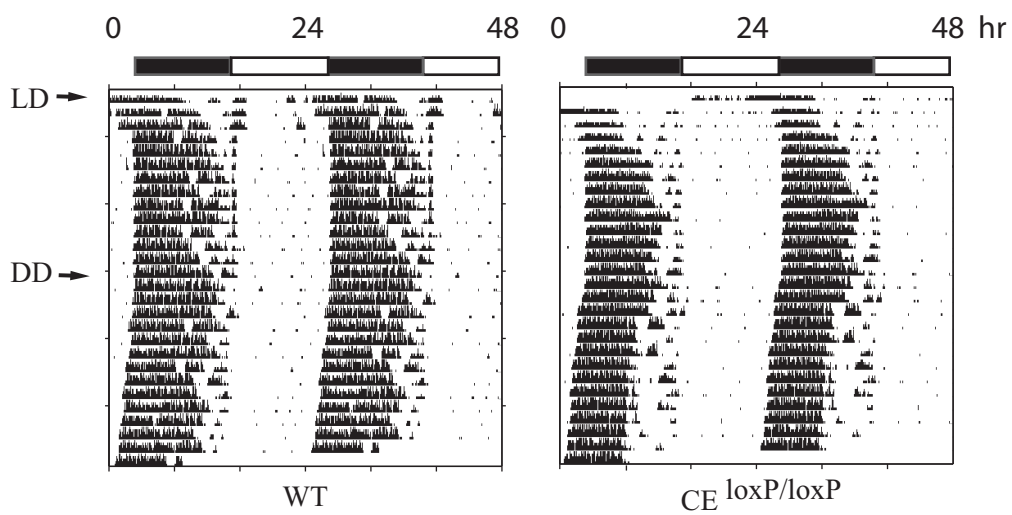


Fig.S2

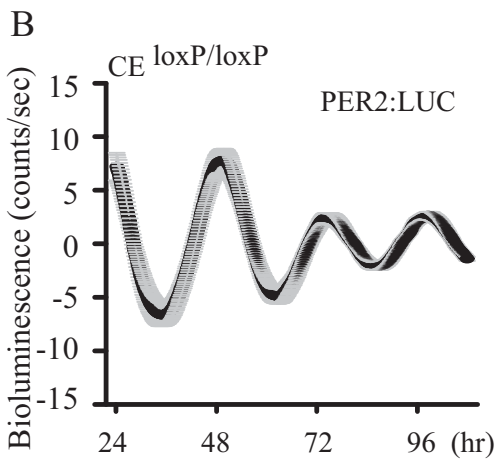
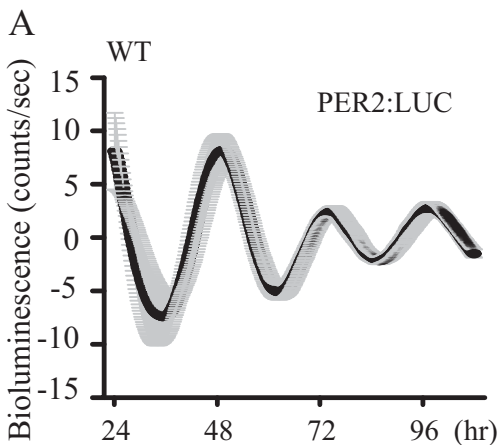


Figure S3

	E1	20	40	60	80	E2	100
mouse	CCACAGC <u>ATTTGGGGGCATT</u>	TATGGGTCTTCCTATAAACT	TCTGAGACAGTAATTTTATC	CTGCTTCTTTCGGCCAAGTA	TCCTCCTCCAGC <u>CAGCTGGTC</u>		
rat	CCACAGC <u>ATTTGGGGGCATT</u>	TATGGGCCTTCCTATAAACT	TCTGAGACAGTAATTTTATC	CTGCTTCTTTCGGCCAAGTA	TCCTCCTCCAGC <u>CAGCTGGTC</u>		
human	CCACAGC <u>CAGCTGGGGGCATT</u>	TATGGGCCTTCCTATAAACT	TCTGAGAGGGTAACTTTATC	CTGCTTCTTTCAGCCAAGTA	TCCTCCTCCAGC <u>CAGCTGGTC</u>		
	***** . *****	*****	***** . *****	***** . *****	***** . *****	*****	*****
		120	#	140	E3	180	200
mouse	ACAAAGCCAGTTAATCTCCC	AGAGTGCTC <u>CAGCTTAAAACC</u>	CGTGACTCACAAACACAGCCA	<u>GTTGGGGGAAGGGGACAGCC</u>	GCCTCCAAACG-TGGCGCCC		
rat	ACAAAGCCAGTTAATCTCCC	AGAGTGCTC <u>CAGCTTAAAACC</u>	CGTGACTCACAGCGCAGCCA	<u>GTTGGGGGAAGGGGACAGCC</u>	GCCTCCAAACG-TGGCGCCC		
human	ACAAAGCTGGTTAATCTCCC	AGAGTGCTC <u>CAGCTTAAAACC</u>	CGTGACTCACAGCACAGCCA	<u>GTGTGGGGGAGGGGGTGGCT</u>	GCCTCCAATACGTGGCGCCC		
	***** . *****	*****	***** . *****	** . ***** . ***** . . . ** .	***** . . . *****		
	E4	220	240				
mouse	AGAGTC <u>CAGCTGTTCTGGGT</u>	CTTCTCCGGTTTCTCTAGCT	CAGGCCTAGGGGCTGGGG				
rat	AGAGTC <u>CAGCTGTTCTGGGT</u>	CTTCTCCGGTTTCTCTAGCT	CGGGCCTGGGGTTGGGGC				
human	AGAGTC <u>CAGCTGTTCTGGGGC</u>	CTTCTCTGGTTTCTCCAAC	GAGTCCTGAGGTTTGGGG				
	***** . *****	***** . ***** . * . **	. . * . ***** . * . . . ***** .				