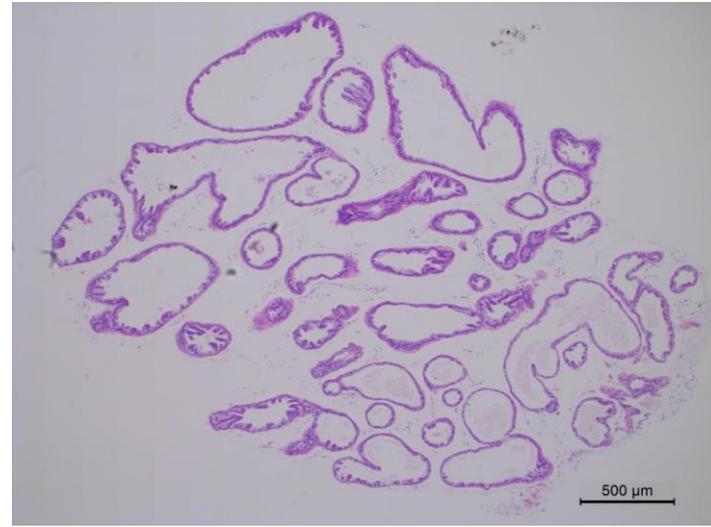




Bmal1^{fx/fx}



Bmal1^{fx/fx} - Cre

Figure S1: Histological analysis of ventral prostates in *Bmal1^{fx/fx}* mice and *PbsnCre⁺; Bmal1^{fx/fx}* mice. Sections were stained with hematoxylin and eosin (H&E).

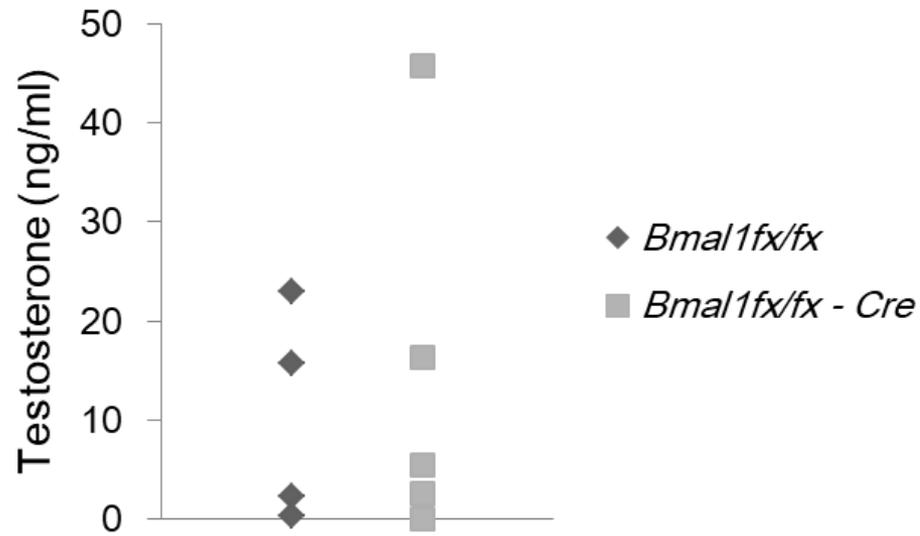
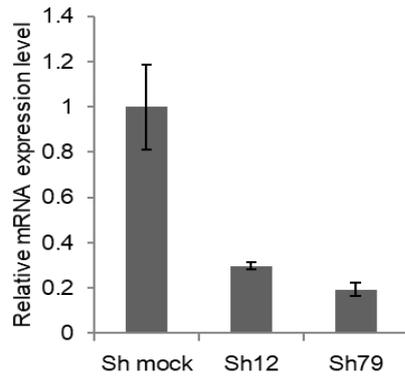


Figure S2: Serum testosterone concentration of *PbsnCre⁺; Bmal1^{fx/fx}* mice ($N=5$) and *Bmal1^{fx/fx}* mice ($N=4$).

A



B

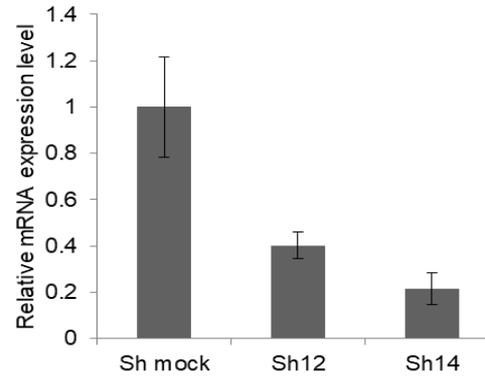


Figure S3: The levels of *BMAL1* expression in *BMAL1*-knockdown cells. (A) prostate epithelial cells, RWPE-1. (B) prostate stromal cells, WPMY-1.

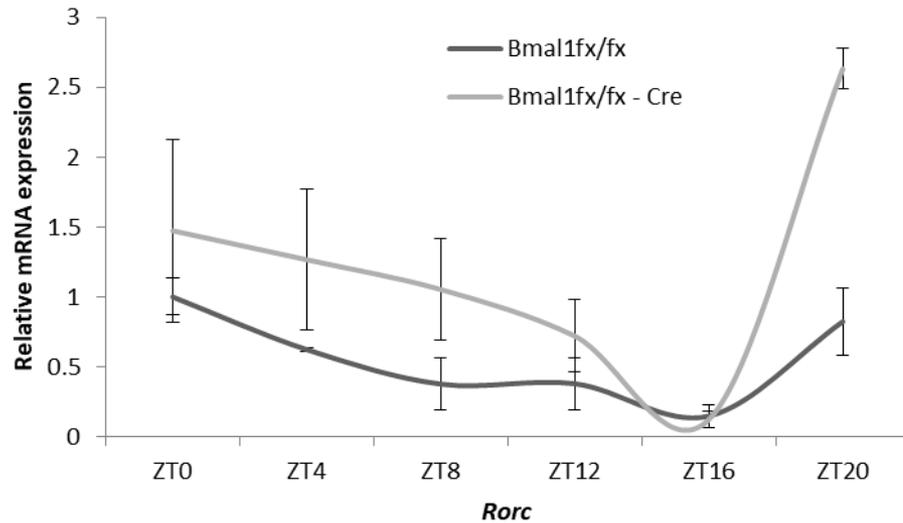
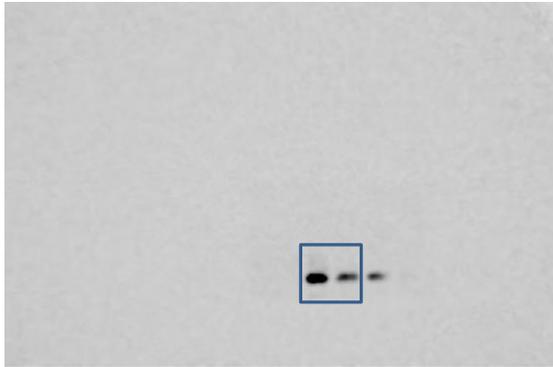


Figure S4: Oscillation of *Rorc* mRNA in *Bmal1^{fx/fx}* mice and increased expression of *Rorc* mRNA in mouse prostates from p*Bmal1* KO mice. Oscillation of *Rorc* in mouse dorsolateral prostates under LD condition ($N=3$ for each time point). P-values with Cosinor analysis in *Rorc* were 0.091 in *Bmal1^{fx/fx}* mice and 0.366 in p*Bmal1* KO mice, respectively.

Figure 1B

BMAL1

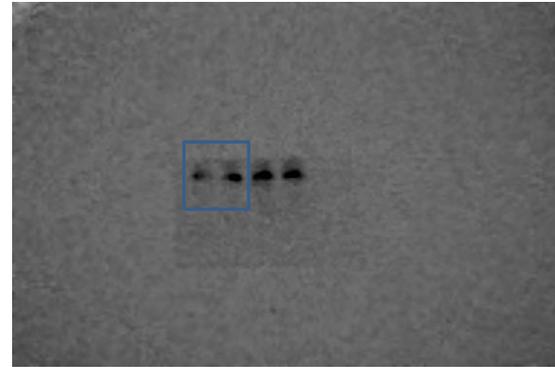


ACTB



Figure 5A

p21



ACTB

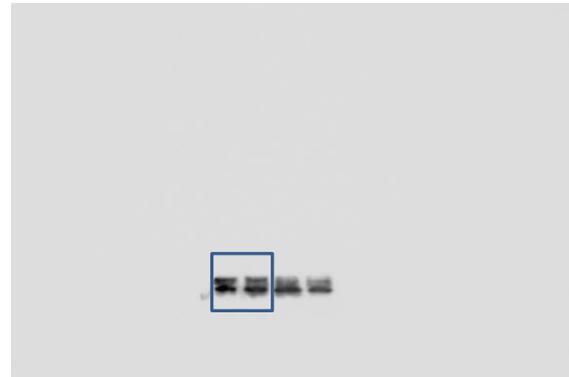


Figure S5: Full-length unedited blots for Figure 1B and 5A

Table S1. Primers for real-time quantitative PCR.

Species	Gene name		Primer sequences	Amplicon size (b.p.)
Human	<i>Bmal1</i>	Forward	GAAGACAACGAACCAGACAATGAG	86
		Reverse	GGTTGTGGA ACTACATGAGAATGC	
	<i>GAPDH</i>	Forward	GAAGGTGAAGGTCGGAGTC	226
		Reverse	GAAGATGGTGATGGGATTTC	
Mouse	<i>Bmal1</i>	Forward	CCAAGAAAGTATGGACACAGACAAA	81
		Reverse	GCATTCTTGATCCTTCCTTGGT	
	<i>Cdkn1a</i>	Forward	GCAGACCAGCCTGACAGATTT	211
		Reverse	GAGAGGGCAGGCAGCGTAT	
	<i>Rorc</i>	Forward	CGACTGGAGGACCTTCTACG	94
		Reverse	GCTCCCACATCTCCCACA	
	<i>Rn18S</i>	Forward	ACTCAACACGGGAAACCTCA	123
		Reverse	AACCAGACAAATCGCTCCAC	