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Supplemental Information

The Circadian Clock Controls Toll-like

Receptor 9-Mediated Innate and Adaptive Immunity

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Figure S1

-221
.
CTGGGTTTTGGTTCCCTCCACAGCTCTTTGGGGGGTGGGGGCATATGTGATACCCT

-163
.
TTGGCTGATTGTGGGTGGGAGGAGAGTGGAAAGAGGAAGGGTGAGGGGTTATCT

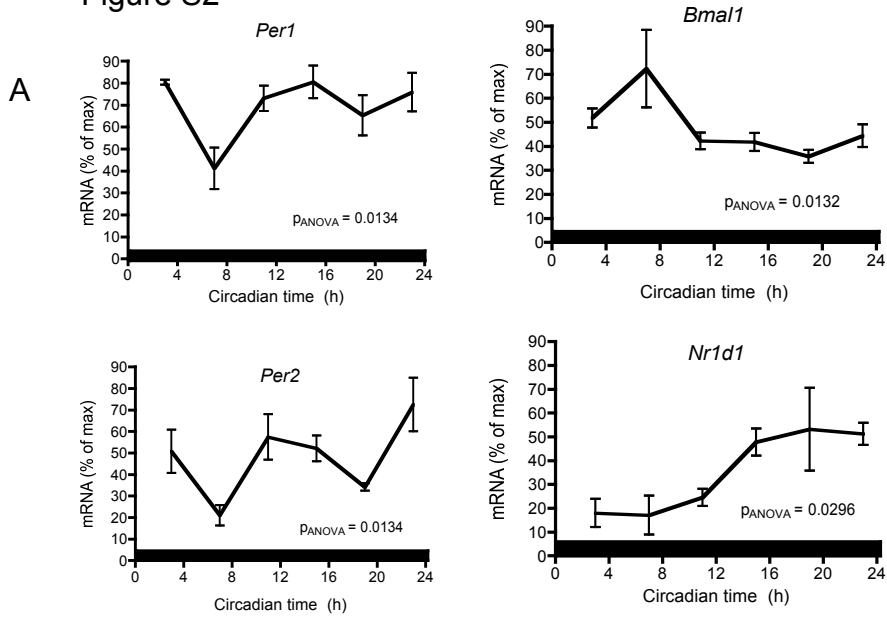
-105
.
E-box E-box
GTCTG CCATCTG ACTATGCAAATGATGTGTGACTCATTGTAC CACCTG CTCTTTCAGG

-47
.
GTAGGGACAAAGTAGCTACTAAGCTGTAGTGAAAGT +1 → GTCACCTTCTC AATTCTCTGAG

Figure S1. E-boxes in the *Tlr9* promoter region.

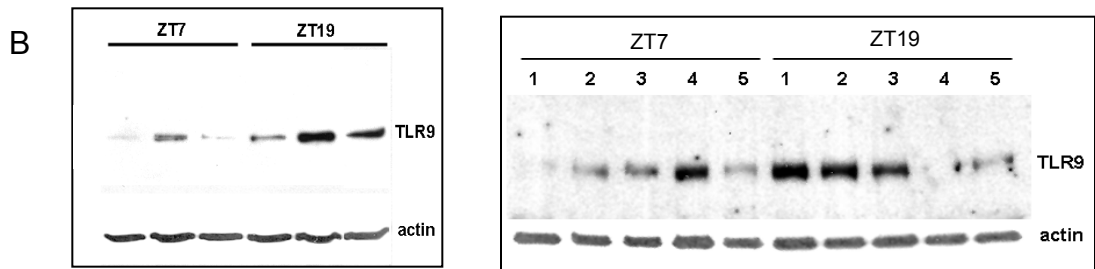
Non-canonical E-boxes, E-box63 (CACCTG) and E-box99 (CATCTG), in the proximal region of the murine *Tlr9* promoter.

Figure S2



spleen

splenic macrophages



splenic B cells

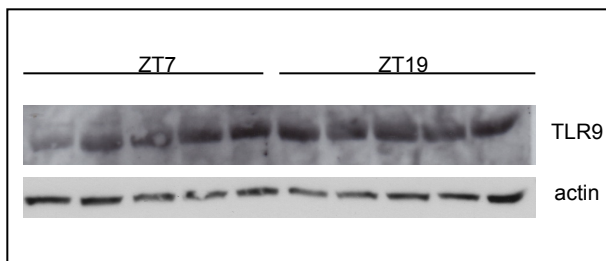


Figure S2.

(A) Circadian oscillations of canonical clock genes expression in spleen under constant conditions. Relative mRNA amounts at each time point were calculated as the percentage of the maximum value over the 24-h period. Data are mean \pm s.e.m., $n = 3-5$ mice per time point.

(B) Daily variations in TLR9 protein amounts. TLR9 protein amount determined by immunoblot in the spleen, splenic macrophages, and splenic B cells at ZT7 and ZT19. Actin was used as normalizing factor. Representative immunoblots are shown.

Figure S3

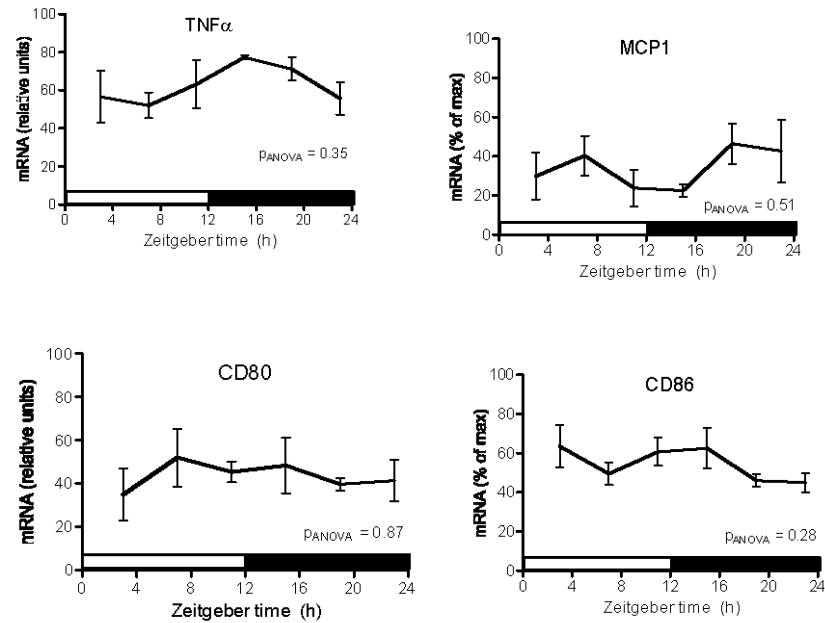


Figure S3. mRNA amounts of cytokines and co-stimulatory molecules over the daily LD cycle in mouse spleen.

Relative mRNA amounts at each time point were calculated as the percentage of the maximum value over the 24-h period. Data are mean \pm s.e.m., n = 5 mice per time point.