

Resource Summary Report

Generated by T1D on Sep 19, 2026

C57BL/6J-Tg(Per1-VLUC.Bmal1-FLUC)CZ205-4Obs/Rbrc

RRID:IMSR_RBRC02670

Type: Organism

Proper Citation

RRID:IMSR_RBRC02670

Organism Information

URL: <https://brc.riken.jp/mus/RBRC02670>

Proper Citation: RRID:IMSR_RBRC02670

Description: Mus musculus with name C57BL/6J-Tg(Per1-VLUC.Bmal1-FLUC)CZ205-4Obs/Rbrc from IMSR.

Species: Mus musculus

Synonyms: C57BL/6J-Tg(Per1-luc.Bmal1-luc)CZ205-4Osb/Rbrc

Notes: gene symbol note: transgene insertion C205-4|luciferase|period circadian clock 1|basic helix-loop-helix ARNT like 1; coisogenic strain|mutant strain: Tg(Perl-VLUC;Bmal1-FLUC)CZ205-4Obs|luc|Per1|Bmal1

Affected Gene: transgene insertion C205-4|luciferase|period circadian clock 1|basic helix-loop-helix ARNT like 1

Genomic Alteration: transgene insertion C205-4|luciferase|period circadian clock 1|aryl hydrocarbon receptor nuclear translocator-like

Catalog Number: RBRC02670

Database: RIKEN BioResource Research Center

Database Abbreviation: RBRC

Availability: embryo

Organism Name: C57BL/6J-Tg(Per1-VLUC.Bmal1-FLUC)CZ205-4Obs/Rbrc

Record Creation Time: 20250513T061447+0000

Ratings and Alerts

No rating or validation information has been found for C57BL/6J-Tg(Per1-VLUC.Bmal1-FLUC)CZ205-4Obs/Rbrc.

No alerts have been found for C57BL/6J-Tg(Per1-VLUC.Bmal1-FLUC)CZ205-4Obs/Rbrc.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: RIKEN BioResource Research Center

Usage and Citation Metrics

We found 34 mentions in open access literature.

Listed below are recent publications. The full list is available at [T1D](#).

Taleb Z, et al. (2022) BMAL1 Regulates the Daily Timing of Colitis. *Frontiers in cellular and infection microbiology*, 12, 773413.

Singla R, et al. (2022) Haploinsufficiency of a Circadian Clock Gene Bmal1 (Arntl or Mop3) Causes Brain-Wide mTOR Hyperactivation and Autism-like Behavioral Phenotypes in Mice. *International journal of molecular sciences*, 23(11).

Li F, et al. (2022) BMAL1 regulates *Propionibacterium acnes*-induced skin inflammation via REV-ERB α in mice. *International journal of biological sciences*, 18(6), 2597.

Lyu X, et al. (2021) Circadian clock disruption attenuated growth hormone(GH)-mediated signalling. *General and comparative endocrinology*, 302, 113670.

Öztürk M, et al. (2021) Does a Red House Affect Rhythms in Mice with a Corrupted Circadian System? *International journal of molecular sciences*, 22(5).

Liu JL, et al. (2021) Circadian Clock Disruption Suppresses PDL1+ Intraepithelial B Cells in Experimental Colitis and Colitis-Associated Colorectal Cancer. *Cellular and molecular gastroenterology and hepatology*, 12(1), 251.

Holtkamp SJ, et al. (2021) Circadian clocks guide dendritic cells into skin lymphatics. *Nature immunology*, 22(11), 1375.

Xu L, et al. (2021) Bmal1 Downregulation Worsens Critical Limb Ischemia by Promoting Inflammation and Impairing Angiogenesis. *Frontiers in cardiovascular medicine*, 8, 712903.

Biancolin AD, et al. (2020) The core clock gene, Bmal1, and its downstream target, the SNARE regulatory protein secretagogin, are necessary for circadian secretion of

glucagon-like peptide-1. *Molecular metabolism*, 31, 124.

Clemenzi MN, et al. (2020) Analysis of Western diet, palmitate and BMAL1 regulation of neuropeptide Y expression in the murine hypothalamus and BMAL1 knockout cell models. *Molecular and cellular endocrinology*, 507, 110773.

Slomnicki LP, et al. (2020) Improved locomotor recovery after contusive spinal cord injury in *Bmal1*^{-/-} mice is associated with protection of the blood spinal cord barrier. *Scientific reports*, 10(1), 14212.

Sato S, et al. (2020) Homer1a Undergoes Bimodal Transcriptional Regulation by CREB and the Circadian Clock. *Neuroscience*, 434, 161.

Ali AAH, et al. (2019) Deficiency of the clock gene *Bmal1* affects neural progenitor cell migration. *Brain structure & function*, 224(1), 373.

Wang S, et al. (2019) Circadian Clock Gene *Bmal1* Regulates Bilirubin Detoxification: A Potential Mechanism of Feedback Control of Hyperbilirubinemia. *Theranostics*, 9(18), 5122.

Trott AJ, et al. (2018) Regulation of circadian clock transcriptional output by CLOCK:BMAL1. *PLoS genetics*, 14(1), e1007156.

Tulsian R, et al. (2018) Caloric restriction effects on liver mTOR signaling are time-of-day dependent. *Aging*, 10(7), 1640.

Aten S, et al. (2018) miR-132 couples the circadian clock to daily rhythms of neuronal plasticity and cognition. *Learning & memory (Cold Spring Harbor, N.Y.)*, 25(5), 214.

Kiessling S, et al. (2017) The circadian clock in immune cells controls the magnitude of *Leishmania* parasite infection. *Scientific reports*, 7(1), 10892.

Gillessen M, et al. (2017) A simple method to measure CLOCK-BMAL1 DNA binding activity in tissue and cell extracts. *F1000Research*, 6, 1316.

Kunimoto T, et al. (2016) A PTH-responsive circadian clock operates in ex vivo mouse femur fracture healing site. *Scientific reports*, 6, 22409.