

Resource Summary Report

Generated by T1D on Sep 5, 2026

B6.Cg-Tg(Ins1-cre/ERT)1Lphi/J

RRID:IMSR_JAX:024709

Type: Organism

Proper Citation

RRID:IMSR_JAX:024709

Organism Information

URL: <https://www.jax.org/strain/024709>

Proper Citation: RRID:IMSR_JAX:024709

Description: Mus musculus with name B6.Cg-Tg(Ins1-cre/ERT)1Lphi/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: Cre recombinase and estrogen receptor 1 (human) fusion gene|insulin I|transgene insertion 1; Louis Philipson; mutant strain|congenic strain: cre/ERT2|Ins1|Tg(Ins1-cre/ERT)1Lphi

Affected Gene: Cre recombinase and estrogen receptor 1 (human) fusion gene|insulin I|transgene insertion 1; Louis Philipson

Genomic Alteration: transgene insertion 1; Louis Philipson

Catalog Number: JAX:024709

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6.Cg-Tg(Ins1-cre/ERT)1Lphi/J

Record Creation Time: 20250513T053752+0000

Record Last Update: 20260905T044531+0000

Ratings and Alerts

- Used for phenotype by the Human Islet Research Network community. Contact(s): [Vira Kravets](mailto:Vira.Kravets@hirnetwork.org) - Human Islets Research Network <https://hirnetwork.org/>

No alerts have been found for B6.Cg-Tg(Ins1-cre/ERT)1Lphi/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 15 mentions in open access literature.

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

Haidery F, et al. (2025) NRF2 deficiency leads to inadequate beta cell adaptation during pregnancy and gestational diabetes. Redox biology, 81, 103566.

Valdearcos M, et al. (2025) Microglia mediate the early-life programming of adult glucose control. Cell reports, 44(3), 115409.

Fadzeyeva E, et al. (2023) Pancreas-derived DPP4 is not essential for glucose homeostasis under metabolic stress. iScience, 26(5), 106748.

Baumel-Alterzon S, et al. (2023) NRF2 Dysregulation in Mice Leads to Inadequate Beta-Cell Mass Expansion during Pregnancy and Gestational Diabetes. bioRxiv : the preprint server for biology.

Baumel-Alterzon S, et al. (2022) Nrf2 Regulates β -Cell Mass by Suppressing β -Cell Death and Promoting β -Cell Proliferation. Diabetes, 71(5), 989.

Gribben C, et al. (2021) Ductal Ngn3-expressing progenitors contribute to adult β cell neogenesis in the pancreas. Cell stem cell, 28(11), 2000.

Sdao SM, et al. (2021) CDK2 limits the highly energetic secretory program of mature β cells by restricting PEP cycle-dependent KATP channel closure. Cell reports, 34(4), 108690.

Wang X, et al. (2020) Conditional knockout of pyruvate dehydrogenase in mouse pancreatic β cells causes morphological and functional changes. Molecular medicine reports, 21(4), 1717.

Oakie A, et al. (2020) Postnatal knockout of beta cell insulin receptor impaired insulin secretion in male mice exposed to high-fat diet stress. Molecular and cellular endocrinology, 499, 110588.

Lockridge A, et al. (2020) Islet O-GlcNAcylation Is Required for Lipid Potentiation of Insulin Secretion through SERCA2. Cell reports, 31(5), 107609.

Mosleh E, et al. (2020) Ins1-Cre and Ins1-CreER Gene Replacement Alleles Are Susceptible To Silencing By DNA Hypermethylation. *Endocrinology*, 161(8).

Shirakawa J, et al. (2017) Insulin Signaling Regulates the FoxM1/PLK1/CENP-A Pathway to Promote Adaptive Pancreatic β Cell Proliferation. *Cell metabolism*, 25(4), 868.

van der Meulen T, et al. (2017) Virgin Beta Cells Persist throughout Life at a Neogenic Niche within Pancreatic Islets. *Cell metabolism*, 25(4), 911.

Quarta C, et al. (2017) Molecular Integration of Incretin and Glucocorticoid Action Reverses Immunometabolic Dysfunction and Obesity. *Cell metabolism*, 26(4), 620.

Schulz N, et al. (2016) Critical role for adenosine receptor A2a in β -cell proliferation. *Molecular metabolism*, 5(11), 1138.