

Resource Summary Report

Generated by [NIF](#) on Aug 2, 2026

B6(Cg)-Ins1^{tm1.1(cre)}Thor/J

RRID:IMSR_JAX:026801

Type: Organism

Proper Citation

RRID:IMSR_JAX:026801

Organism Information

URL: <https://www.jax.org/strain/026801>

Proper Citation: RRID:IMSR_JAX:026801

Description: Mus musculus with name B6(Cg)-Ins1^{tm1.1(cre)}Thor/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: insulin I|; mutant strain: Ins1|

Affected Gene: insulin I|

Genomic Alteration: targeted mutation 1.1; Bernard Thorens

Catalog Number: JAX:026801

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6(Cg)-Ins1^{tm1.1(cre)}Thor/J

Record Creation Time: 20250513T053758+0000

Record Last Update: 20260801T050508+0000

Ratings and Alerts

- Used for genotyping by the Human Islet Research Network community. Contact(s): [Peter Arvan](#) - Human Islets Research Network <https://hirnetwork.org/>

No alerts have been found for B6(Cg)-Ins1^{tm1.1(cre)}Thor/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 19 mentions in open access literature.

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

Osipovich AB, et al. (2025) Dynamic Ca²⁺-Dependent Transcription Links Metabolic Stress to Impaired β -Cell Identity. *Diabetes*, 74(9), 1547.

Bernardo E, et al. (2025) HNF1A and A1CF coordinate a beta cell transcription-splicing axis that is disrupted in type 2 diabetes. *Cell metabolism*, 37(9), 1870.

Austin MC, et al. (2025) Dysfunctional β -cell autophagy induces β -cell stress and enhances islet immunogenicity. *Frontiers in immunology*, 16, 1504583.

Bartosiak JT, et al. (2025) Lipopolysaccharide-induced cytokine signaling activates a temporal innate defense program and represses pancreatic β -cell identity. *The Journal of biological chemistry*, 301(12), 110811.

Graff SM, et al. (2024) TALK-1-mediated alterations of β -cell mitochondrial function and insulin secretion impair glucose homeostasis on a diabetogenic diet. *Cell reports*, 43(1), 113673.

Baumel-Alterzon S, et al. (2024) NRF2 is required for neonatal mouse beta cell growth by maintaining redox balance and promoting mitochondrial biogenesis and function. *Diabetologia*, 67(3), 547.

Jones Lipinski RA, et al. (2024) Zinc-chelating BET bromodomain inhibitors equally target islet endocrine cell types. *American journal of physiology. Regulatory, integrative and comparative physiology*, 326(6), R515.

Kitamura RA, et al. (2024) Dual role of neuroplastin in pancreatic β cells: Regulating insulin secretion and promoting islet inflammation. *Proceedings of the National Academy of Sciences of the United States of America*, 121(33), e2411234121.

Gong Y, et al. (2023) Loss of RanGAP1 drives chromosome instability and rapid tumorigenesis of osteosarcoma. *Developmental cell*, 58(3), 192.

Lacombe J, et al. (2023) Vitamin K-dependent carboxylation regulates Ca²⁺ flux and adaptation to metabolic stress in β cells. *Cell reports*, 42(5), 112500.

Pelligra A, et al. (2023) Pancreatic islet protection at the expense of secretory function involves serine-linked mitochondrial one-carbon metabolism. *Cell reports*, 42(6), 112615.

Osipovich AB, et al. (2023) Deletion of Ascl1 in pancreatic β -cells improves insulin secretion, promotes parasympathetic innervation, and attenuates dedifferentiation during metabolic stress. *Molecular metabolism*, 78, 101811.

Tixi W, et al. (2023) Coordination between ECM and cell-cell adhesion regulates the development of islet aggregation, architecture, and functional maturation. *eLife*, 12.

Zhang X, et al. (2022) IL18 signaling causes islet β cell development and insulin secretion via different receptors on acinar and β cells. *Developmental cell*, 57(12), 1496.

Papazoglou I, et al. (2022) A distinct hypothalamus-to- β cell circuit modulates insulin secretion. *Cell metabolism*, 34(2), 285.

Nasteska D, et al. (2021) PDX1LOW MAFALOW β -cells contribute to islet function and insulin release. *Nature communications*, 12(1), 674.

Adams MT, et al. (2021) Reduced synchronicity of intra-islet Ca^{2+} oscillations in vivo in Robo-deficient β cells. *eLife*, 10.

Shrestha N, et al. (2020) Sel1L-Hrd1 ER-associated degradation maintains β cell identity via TGF- β signaling. *The Journal of clinical investigation*, 130(7), 3499.

Ast J, et al. (2020) Super-resolution microscopy compatible fluorescent probes reveal endogenous glucagon-like peptide-1 receptor distribution and dynamics. *Nature communications*, 11(1), 467.