

Resource Summary Report

Generated by PRECISE-TBI on Aug 1, 2026

C57BL/6-Ins2^{Akita}/J

RRID:IMSR_JAX:003548

Type: Organism

Proper Citation

RRID:IMSR_JAX:003548

Organism Information

URL: <https://www.jax.org/strain/003548>

Proper Citation: RRID:IMSR_JAX:003548

Description: Mus musculus with name C57BL/6-Ins2^{Akita}/J from IMSR.

Species: Mus musculus

Synonyms: C57BL/6J-Ins2. MODY. Akita

Notes: gene symbol note: insulin II; mutant strain: Ins2

Affected Gene: insulin II

Genomic Alteration: Akita

Catalog Number: JAX:003548

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: C57BL/6-Ins2^{Akita}/J

Record Creation Time: 20250513T053640+0000

Record Last Update: 20260801T050342+0000

Ratings and Alerts

- Used for humanized mouse by the Human Islet Research Network community.
Contact(s): [Ronald Gill](#) - Human Islets Research Network <https://hirnetwork.org/>

No alerts have been found for C57BL/6-Ins2^{Akita}/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 114 mentions in open access literature.

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

De Rossi G, et al. (2025) Leucine-rich ?-2-glycoprotein 1 initiates the onset of diabetic retinopathy in mice. *Science translational medicine*, 17(821), eadn6047.

Bari? A, et al. (2025) Bradykinin Type 2 Receptor Deficiency Reshapes Acute Neuroinflammation and Improves Cell Survival after Ischemic Stroke in Diabetic Mice. *Journal of neuroimmune pharmacology : the official journal of the Society on NeuroImmune Pharmacology*, 20(1), 107.

Crespo-Masip M, et al. (2025) ASK1 limits kidney glucose reabsorption, growth, and mid-late proximal tubule KIM-1 induction when diabetes and Western diet are combined with SGLT2 inhibition. *American journal of physiology. Renal physiology*, 328(5), F662.

Silk RP, et al. (2024) Mapping the daily rhythmic transcriptome in the diabetic retina. *Vision research*, 214, 108339.

Tserga A, et al. (2024) Complement Cascade Proteins Correlate with Fibrosis and Inflammation in Early-Stage Type 1 Diabetic Kidney Disease in the Ins2Akita Mouse Model. *International journal of molecular sciences*, 25(3).

Mansoor H, et al. (2024) Topical and oral peroxisome proliferator-activated receptor-? agonist ameliorates diabetic corneal neuropathy. *Scientific reports*, 14(1), 13435.

Kempf S, et al. (2024) Pericyte-to-Endothelial Cell Communication via Tunneling Nanotubes Is Disrupted by a Diol of Docosahexaenoic Acid. *Cells*, 13(17).

Rashwan AM, et al. (2024) Implications of endoplasmic reticulum stress and beta-cell loss in immunodeficient diabetic NRG-Akita mice for understanding monogenic diabetes. *International journal of surgery (London, England)*, 110(10), 6231.

Anderson A, et al. (2024) Relaxation of mitochondrial hyperfusion in the diabetic retina via N6-furfuryladenine confers neuroprotection regardless of glycaemic status. *Nature communications*, 15(1), 1124.

Costa RM, et al. (2024) In utero exposure to maternal diabetes exacerbates dietary sodium intake-induced endothelial dysfunction by activating cyclooxygenase 2-derived prostanoids. *American journal of physiology. Endocrinology and metabolism*, 326(5), E555.

Pomeroy B, et al. (2023) Fluorescence Angiography with Dual Fluorescence for the Early Detection and Longitudinal Quantitation of Vascular Leakage in Retinopathy. *Biomedicines*, 11(2).

Sadikan MZ, et al. (2023) Diabetic retinopathy: a comprehensive update on in vivo, in vitro and ex vivo experimental models. *BMC ophthalmology*, 23(1), 421.

Tang Q, et al. (2023) Mitochondrial protein MPV17 promotes β -cell apoptosis in diabetogenesis. *Clinical science (London, England : 1979)*, 137(15), 1195.

Boström KI, et al. (2023) GSK3 β Inhibition Reduced Vascular Calcification in Ins2Akita/+ Mice. *International journal of molecular sciences*, 24(6).

Saleem F, et al. (2023) Influence of Age on Hyperoxia-Induced Cardiac Pathophysiology in Type 1 Diabetes Mellitus (T1DM) Mouse Model. *Cells*, 12(11).

Dallacasagrande V, et al. (2023) Blockade of Annexin A2 Prevents Early Microvasculopathy in Murine Models of Diabetic Retinopathy. *Investigative ophthalmology & visual science*, 64(4), 33.

Maestroni S, et al. (2023) Diabetes has no additional impact on retinal ganglion cell loss in a mouse model of spontaneous glaucoma. *European journal of ophthalmology*, 33(3), 1418.

Herat LY, et al. (2023) SGLT1/2 inhibition improves glycemic control and multi-organ protection in type 1 diabetes. *iScience*, 26(8), 107260.

Tserga A, et al. (2022) Proteomic Analysis of Mouse Kidney Tissue Associates Peroxisomal Dysfunction with Early Diabetic Kidney Disease. *Biomedicines*, 10(2).

Fuselier T, et al. (2022) Efficacy of glucagon-like peptide-1 and estrogen dual agonist in pancreatic islets protection and pre-clinical models of insulin-deficient diabetes. *Cell reports. Medicine*, 3(4), 100598.