

Resource Summary Report

Generated by [NIF](#) on Aug 13, 2026

[Kcnb1^{tm1Dgen}/Kcnb1^{tm1Dgen}](#)

RRID:MGI:3806050

Type: Organism

Proper Citation

RRID:MGI:3806050

Organism Information

URL:

Proper Citation: RRID:MGI:3806050

Description: Allele Detail: Targeted This is a legacy resource.

Species: Mus musculus

Notes: Allele Detail: Targeted This is a legacy resource.

Phenotype: abnormal pancreatic beta cell physiology, improved glucose tolerance, hypoglycemia, increased circulating insulin level, increased insulin secretion

Affected Gene: Kcnb1

Genomic Alteration: tm1Dgen

Catalog Number: 3806050

Background: involves: C57BL/6

Database: MGI, Mouse Genome Informatics MGI

Database Abbreviation: MGI

Availability: Availability unknown check source stock center

Source References: [PMID:17767909](#)

Organism Name: Kcnb1^{tm1Dgen}/Kcnb1^{tm1Dgen}

Record Creation Time: 20240120T190421+0000

Record Last Update: 20240130T201909+0000

Ratings and Alerts

No rating or validation information has been found for Kcnb1^{tm1Dgen}/Kcnb1^{tm1Dgen}.

No alerts have been found for Kcnb1^{tm1Dgen}/Kcnb1^{tm1Dgen}.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: MGI, Mouse Genome Informatics MGI

Usage and Citation Metrics

We found 5 mentions in open access literature.

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

Fortenbach C, et al. (2021) Loss of the K⁺ channel Kv2.1 greatly reduces outward dark current and causes ionic dysregulation and degeneration in rod photoreceptors. The Journal of general physiology, 153(2).

Vierra NC, et al. (2019) Kv2.1 mediates spatial and functional coupling of L-type calcium channels and ryanodine receptors in mammalian neurons. eLife, 8.

Kirmiz M, et al. (2018) Identification of VAPA and VAPB as Kv2 Channel-Interacting Proteins Defining Endoplasmic Reticulum-Plasma Membrane Junctions in Mammalian Brain Neurons. The Journal of neuroscience : the official journal of the Society for Neuroscience, 38(35), 7562.

Kirmiz M, et al. (2018) Remodeling neuronal ER-PM junctions is a conserved nonconducting function of Kv2 plasma membrane ion channels. Molecular biology of the cell, 29(20), 2410.

Mandikian D, et al. (2014) Cell type-specific spatial and functional coupling between mammalian brain Kv2.1 K⁺ channels and ryanodine receptors. The Journal of comparative neurology, 522(15), 3555.