

Resource Summary Report

Generated by [NIF](#) on Sep 9, 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.