

Resource Summary Report

Generated by [ASWG](#) on Aug 10, 2026

DBA/2J-Gpnmb⁺/SjJ

RRID:IMSR_JAX:007048

Type: Organism

Proper Citation

RRID:IMSR_JAX:007048

Organism Information

URL: <https://www.jax.org/strain/007048>

Proper Citation: RRID:IMSR_JAX:007048

Description: Mus musculus with name DBA/2J-Gpnmb⁺/SjJ from IMSR.

Species: Mus musculus

Notes: gene symbol note: glycoprotein (transmembrane) nmb|hemolytic complement|cadherin related 23 (otocadherin); inbred strain: Gpnmb|Hc|Cdh23

Affected Gene: glycoprotein (transmembrane) nmb|hemolytic complement|cadherin related 23 (otocadherin)

Genomic Alteration: wild type|deficient|age related hearing loss 1

Catalog Number: JAX:007048

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: DBA/2J-Gpnmb⁺/SjJ

Record Creation Time: 20250513T053700+0000

Record Last Update: 20260808T050905+0000

Ratings and Alerts

No rating or validation information has been found for DBA/2J-Gpnmb⁺/SjJ.

No alerts have been found for DBA/2J-Gpmb⁺/SjJ.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 35 mentions in open access literature.

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

McCool S, et al. (2026) Compensatory responses to glaucoma pathology in the dorsolateral geniculate nucleus. *iScience*, 29(4), 115176.

de Oliveira Furtado EM, et al. (2026) Lack of GPNMB Is Associated With Altered Lipid and Glucose Metabolism and Disrupted Diurnal Hepatic Glycogen Regulation. *FASEB journal : official publication of the Federation of American Societies for Experimental Biology*, 40(6), e71616.

Barsanele PS, et al. (2026) Retinal ganglion cell degeneration in glaucoma disrupts HPA axis temporal organization and dampens corticosterone production. *Journal of neuroendocrinology*, 38(4), e70182.

Thompson JL, et al. (2025) Microglia remodeling in the visual thalamus of the DBA/2J mouse model of glaucoma. *PloS one*, 20(5), e0323513.

Van Hook MJ, et al. (2024) Enhanced Synaptic Inhibition in the Dorsolateral Geniculate Nucleus in a Mouse Model of Glaucoma. *eNeuro*, 11(7).

Hurst CD, et al. (2023) Genetic background influences the 5XFAD Alzheimer's disease mouse model brain proteome. *bioRxiv : the preprint server for biology*.

Hurst CD, et al. (2023) Genetic background influences the 5XFAD Alzheimer's disease mouse model brain proteome. *Frontiers in aging neuroscience*, 15, 1239116.

Meah A, et al. (2022) Axonal architecture of the mouse inner retina revealed by second harmonic generation. *PNAS nexus*, 1(4), pgac160.

Suda M, et al. (2022) Glycoprotein nonmetastatic melanoma protein B regulates lysosomal integrity and lifespan of senescent cells. *Scientific reports*, 12(1), 6522.

Margeta MA, et al. (2022) Apolipoprotein E4 impairs the response of neurodegenerative retinal microglia and prevents neuronal loss in glaucoma. *Immunity*, 55(9), 1627.

Smith JC, et al. (2022) Loss of Retinogeniculate Synaptic Function in the DBA/2J Mouse Model of Glaucoma. *eNeuro*, 9(6).

- Robinet P, et al. (2021) Quantitative trait locus mapping identifies the Gpnmb gene as a modifier of mouse macrophage lysosome function. *Scientific reports*, 11(1), 10249.
- Colbert MK, et al. (2021) Diffusion Tensor Imaging of Visual Pathway Abnormalities in Five Glaucoma Animal Models. *Investigative ophthalmology & visual science*, 62(10), 21.
- Amato R, et al. (2021) The Potential of Lisosan G as a Possible Treatment for Glaucoma. *Frontiers in pharmacology*, 12, 719951.
- Rohowetz LJ, et al. (2021) The Contribution of Anterior Segment Abnormalities to Changes in Intraocular Pressure in the DBA/2J Mouse Model of Glaucoma: DBA/2J-Gpnmb +/SjJ Mice as Critical Controls. *Frontiers in neuroscience*, 15, 801184.
- Amato R, et al. (2021) Diabetes Exacerbates the Intraocular Pressure-Independent Retinal Ganglion Cells Degeneration in the DBA/2J Model of Glaucoma. *Investigative ophthalmology & visual science*, 62(9), 9.
- Tolman NG, et al. (2021) Genetic background modifies vulnerability to glaucoma-related phenotypes in Lmx1b mutant mice. *Disease models & mechanisms*, 14(2).
- Kingston R, et al. (2021) Serotonin transporter-mediated molecular axis regulates regional retinal ganglion cell vulnerability and axon regeneration after nerve injury. *PLoS genetics*, 17(11), e1009885.
- Fernández-Vega Cueto A, et al. (2020) Systemic Alterations of Immune Response-Related Proteins during Glaucoma Development in the Murine Model DBA/2J. *Diagnostics (Basel, Switzerland)*, 10(6).
- Lambert WS, et al. (2020) Of Mice and Monkeys: Neuroprotective Efficacy of the p38 Inhibitor BIRB 796 Depends on Model Duration in Experimental Glaucoma. *Scientific reports*, 10(1), 8535.