

Resource Summary Report

Generated by [NIF](#) on Aug 30, 2026

B6.CXB1-Pde6b^{rd10}/J

RRID:IMSR_JAX:004297

Type: Organism

Proper Citation

RRID:IMSR_JAX:004297

Organism Information

URL: <https://www.jax.org/strain/004297>

Proper Citation: RRID:IMSR_JAX:004297

Description: Mus musculus with name B6.CXB1-Pde6b^{rd10}/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: phosphodiesterase 6B; cGMP; rod receptor; beta polypeptide; mutant strain|congenic strain: Pde6b

Affected Gene: phosphodiesterase 6B; cGMP; rod receptor; beta polypeptide

Genomic Alteration: retinal degeneration 10

Catalog Number: JAX:004297

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6.CXB1-Pde6b^{rd10}/J

Record Creation Time: 20250513T053644+0000

Record Last Update: 20260829T044935+0000

Ratings and Alerts

No rating or validation information has been found for B6.CXB1-Pde6b^{rd10}/J.

No alerts have been found for B6.CXB1-Pde6b^{rd10}/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 45 mentions in open access literature.

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

Magalhães CF, et al. (2026) Photoreceptor preservation by FAAH inhibition in a murine model of retinitis pigmentosa. *Molecular neurobiology*, 63(1).

Spirig SE, et al. (2026) Cell-type-focused compound screen in human organoids reveals CK1 inhibition protects cone photoreceptors from death. *Neuron*, 114(13), 2347.

Vainionpää K, et al. (2026) Female sex is a risk factor for exacerbated lipid peroxidation and disease in murine retinitis pigmentosa. *Redox biology*, 90, 103987.

Qiu R, et al. (2025) AAV2-PDE6B restores retinal structure and function in the retinal degeneration 10 mouse model of retinitis pigmentosa by promoting phototransduction and inhibiting apoptosis. *Neural regeneration research*, 20(8), 2408.

Grimes WN, et al. (2025) Layer-specific anatomical and physiological features of the retina's neurovascular unit. *Current biology : CB*, 35(1), 109.

Leinonen H, et al. (2024) A combination treatment based on drug repurposing demonstrates mutation-agnostic efficacy in pre-clinical retinopathy models. *Nature communications*, 15(1), 5943.

Yanardag S, et al. (2024) Prominin 1 is crucial for the early development of photoreceptor outer segments. *Scientific reports*, 14(1), 10498.

Roh H, et al. (2023) Electrically-evoked responses for retinal prostheses are differentially altered depending on ganglion cell types in outer retinal neurodegeneration caused by *Crb1* gene mutation. *Frontiers in cellular neuroscience*, 17, 1115703.

Guo CJ, et al. (2023) Exosome-mediated inhibition of microRNA-449a promotes the amplification of mouse retinal progenitor cells and enhances their transplantation in retinal degeneration mouse models. *Molecular therapy. Nucleic acids*, 31, 763.

Marra KV, et al. (2022) Bioactive extracellular vesicles from a subset of endothelial progenitor cells rescue retinal ischemia and neurodegeneration. *JCI insight*, 7(12).

Ahn J, et al. (2022) Correlated Activity in the Degenerate Retina Inhibits Focal Response to Electrical Stimulation. *Frontiers in cellular neuroscience*, 16, 889663.

Steins H, et al. (2022) A flexible protruding microelectrode array for neural interfacing in bioelectronic medicine. *Microsystems & nanoengineering*, 8, 131.

Karademir D, et al. (2022) Single-cell RNA sequencing of the retina in a model of retinitis pigmentosa reveals early responses to degeneration in rods and cones. *BMC biology*, 20(1), 86.

Liu F, et al. (2022) Trans-Sclera Electrical Stimulation Improves Retinal Function in a Mouse Model of Retinitis Pigmentosa. *Life (Basel, Switzerland)*, 12(11).

Zhang L, et al. (2021) Large-scale phenotypic drug screen identifies neuroprotectants in zebrafish and mouse models of retinitis pigmentosa. *eLife*, 10.

Pietra G, et al. (2021) Visual Cortex Engagement in Retinitis Pigmentosa. *International journal of molecular sciences*, 22(17).

Liu F, et al. (2021) Wolfberry-derived zeaxanthin dipalmitate delays retinal degeneration in a mouse model of retinitis pigmentosa through modulating STAT3, CCL2 and MAPK pathways. *Journal of neurochemistry*, 158(5), 1131.

Ryals RC, et al. (2020) A Ketogenic & Low-Protein Diet Slows Retinal Degeneration in rd10 Mice. *Translational vision science & technology*, 9(11), 18.

Oesterle J, et al. (2020) Bayesian inference for biophysical neuron models enables stimulus optimization for retinal neuroprosthetics. *eLife*, 9.

Sundaramurthi H, et al. (2020) Selective Histone Deacetylase 6 Inhibitors Restore Cone Photoreceptor Vision or Outer Segment Morphology in Zebrafish and Mouse Models of Retinal Blindness. *Frontiers in cell and developmental biology*, 8, 689.