Resource Summary Report

Generated by kravitz2 on Jul 31, 2026

B6.129S7-Gja1^{tm1Dlg}/J

RRID:IMSR_JAX:008039
Type: Organism

Proper Citation

RRID:IMSR_JAX:008039

Organism Information

URL: https://www.jax.org/strain/008039

Proper Citation: RRID:IMSR_JAX:008039

Description: Mus musculus with name B6.129S7-Gja1^{tm1Dlg}/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: gap junction protein; alpha 1; mutant strain|congenic strain: Gja1

Affected Gene: gap junction protein; alpha 1

Genomic Alteration: targeted mutation 1; Brian R Duling

Catalog Number: JAX:008039

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: B6.129S7-Gja1^{tm1Dlg}/J

Record Creation Time: 20250513T053705+0000

Record Last Update: 20260725T044417+0000

Ratings and Alerts

No rating or validation information has been found for B6.129S7-Gja1^{tm1Dlg}/J.

No alerts have been found for B6.129S7-Gja1^{tm1Dlg}/J.

Data and Source Information

Source: Integrated Animals

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 20 mentions in open access literature.

Listed below are recent publications. The full list is available at kravitz2 .

Moore AC, et al. (2025) Role of soft tissue and bone interactions in the developmental integration and modularity of the skull in neural crest-specific gap junction alpha-1 knockout mice. Anatomical record (Hoboken, N.J. : 2007).

Herbst CH, et al. (2024) Dendritic cells overcome Cre/Lox induced gene deficiency by siphoning cytosolic material from surrounding cells. iScience, 27(3), 109119.

Morales-Soto W, et al. (2023) Enteric glia promote visceral hypersensitivity during inflammation through intercellular signaling with gut nociceptors. Science signaling, 16(812), eadg1668.

Genet N, et al. (2023) Connexin 43-mediated neurovascular interactions regulate neurogenesis in the adult brain subventricular zone. Cell reports, 42(4), 112371.

Choi C, et al. (2022) Macrophage-Specific Connexin 43 Knockout Protects Mice from Obesity-Induced Inflammation and Metabolic Dysfunction. Frontiers in cell and developmental biology, 10, 925971.

Tirosh A, et al. (2021) Intercellular Transmission of Hepatic ER Stress in Obesity Disrupts Systemic Metabolism. Cell metabolism, 33(2), 319.

Grubiši? V, et al. (2020) Enteric Glia Modulate Macrophage Phenotype and Visceral Sensitivity following Inflammation. Cell reports, 32(10), 108100.

Wang J, et al. (2019) Lateral dispersion is required for circuit integration of newly generated dentate granule cells. Nature communications, 10(1), 3324.

Wang M, et al. (2019) Connexin43 in neonatal excitatory neurons is important for short-term motor learning. Brain research, 1720, 146287.

Dosch M, et al. (2019) Connexin-43-dependent ATP release mediates macrophage activation during sepsis. eLife, 8.

Brocardo L, et al. (2019) Beneficial and Detrimental Remodeling of Glial Connexin and Pannexin Functions in Rodent Models of Nervous System Diseases. Frontiers in cellular neuroscience, 13, 491.

Piantanida AP, et al. (2019) Selective Cre-mediated gene deletion identifies connexin 43 as the main connexin channel supporting olfactory ensheathing cell networks. The Journal of comparative neurology, 527(7), 1278.

Delvalle NM, et al. (2018) Communication Between Enteric Neurons, Glia, and Nociceptors Underlies the Effects of Tachykinins on Neuroinflammation. Cellular and molecular gastroenterology and hepatology, 6(3), 321.

Wang H, et al. (2018) The Osteogenic Niche Is a Calcium Reservoir of Bone Micrometastases and Confers Unexpected Therapeutic Vulnerability. Cancer cell, 34(5), 823.

Kim SN, et al. (2017) Connexin 43 is required for the maintenance of mitochondrial integrity in brown adipose tissue. Scientific reports, 7(1), 7159.

Hulsmans M, et al. (2017) Macrophages Facilitate Electrical Conduction in the Heart. Cell, 169(3), 510.

Clasadonte J, et al. (2017) Connexin 43-Mediated Astroglial Metabolic Networks Contribute to the Regulation of the Sleep-Wake Cycle. Neuron, 95(6), 1365.

Fried DE, et al. (2017) Ammonia modifies enteric neuromuscular transmission through glial ?-aminobutyric acid signaling. American journal of physiology. Gastrointestinal and liver physiology, 313(6), G570.

Grubiši? V, et al. (2017) Enteric glial activity regulates secretomotor function in the mouse colon but does not acutely affect gut permeability. The Journal of physiology, 595(11), 3409.

Brown IA, et al. (2016) Enteric glia mediate neuron death in colitis through purinergic pathways that require connexin-43 and nitric oxide. Cellular and molecular gastroenterology and hepatology, 2(1), 77.