Resource Summary Report

Generated by dkNET on Sep 9, 2026

B6.Cg-Piezo1$^{tm2.1Apat}$/J

RRID:IMSR_JAX:029213
Type: Organism

Proper Citation

RRID:IMSR_JAX:029213

Organism Information

URL: https://www.jax.org/strain/029213

Proper Citation: RRID:IMSR_JAX:029213

Description: Mus musculus with name B6.Cg-Piezo1$^{tm2.1Apat}$/J from IMSR.

Species: Mus musculus

Synonyms: STOCK Piezo1/J

Notes: gene symbol note: piezo-type mechanosensitive ion channel component 1; mutant strain|congenic strain: Piezo1

Affected Gene: piezo-type mechanosensitive ion channel component 1

Genomic Alteration: targeted mutation 2.1; Ardem Patapoutian

Catalog Number: JAX:029213

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6.Cg-Piezo1$^{tm2.1Apat}$/J

Record Creation Time: 20250513T053808+0000

Record Last Update: 20260905T044544+0000

Ratings and Alerts

No rating or validation information has been found for B6.Cg-Piezo1$^{tm2.1Apat}$/J.

No alerts have been found for B6.Cg-Piezo1$^{tm2.1Apat}$/J.

Data and Source Information

Source: Integrated Animals

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 23 mentions in open access literature.

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

Hill RZ, et al. (2026) Renal PIEZO2 is an essential regulator of renin. Cell, 189(1), 161.

Chen H, et al. (2026) Hepatocyte PIEZO1 Negatively Regulates Lipogenesis and Ameliorates MASLD by Sensing Membrane Tension and Activating AMPK. Advanced science (Weinheim, Baden-Wurttemberg, Germany), 13(34), e15847.

Coombs AM, et al. (2026) PIEZOs regulate oligodendrocyte sheath formation, expansion, and myelination potential. bioRxiv : the preprint server for biology.

Kim MJ, et al. (2026) Excessive epithelial mechanosensation drives nociceptive innervation and chronic bladder pain via the PIEZO1-SLC7A11-glutamate axis. Cell.

Di R, et al. (2025) A mechano-resistance mechanism in skin adapts to terrestrial locomotion. Cell.

Glogowska E, et al. (2025) Potentiation of macrophage Piezo1 by atherogenic 7-ketocholesterol. Cell reports, 44(4), 115542.

Shi Y, et al. (2025) Piezo1 senses hyphae and initiates host defense against pathogenic fungi. Cell reports, 44(6), 115839.

Chen P, et al. (2025) Pyroptosis of periodontal ligament stem cells aggravates periodontitis via Piezo1 channel. iScience, 28(5), 112395.

Schappe MS, et al. (2024) A vagal reflex evoked by airway closure. Nature, 627(8005), 830.

Huang Y, et al. (2024) Mechano-regulation of GLP-1 production by Piezo1 in intestinal L cells. eLife, 13.

Mukhopadhyay A, et al. (2024) trans-Endothelial neutrophil migration activates bactericidal function via Piezo1 mechanosensing. Immunity, 57(1), 52.

Hurrell BP, et al. (2024) Piezo1 channels restrain ILC2s and regulate the development of airway hyperreactivity. The Journal of experimental medicine, 221(5).

Zhang J, et al. (2024) Osr2 functions as a biomechanical checkpoint to aggravate CD8+ T cell exhaustion in tumor. Cell, 187(13), 3409.

Toma K, et al. (2024) Perivascular neurons instruct 3D vascular lattice formation via neurovascular contact. Cell, 187(11), 2767.

Xie Z, et al. (2023) Piezo2 channels expressed by colon-innervating TRPV1-lineage neurons mediate visceral mechanical hypersensitivity. Neuron, 111(4), 526.

Hu J, et al. (2023) Microglial Piezo1 senses A? fibril stiffness to restrict Alzheimer's disease. Neuron, 111(1), 15.

Leng S, et al. (2022) Ion channel Piezo1 activation promotes aerobic glycolysis in macrophages. Frontiers in immunology, 13, 976482.

Xie Y, et al. (2022) Hair shaft miniaturization causes stem cell depletion through mechanosensory signals mediated by a Piezo1-calcium-TNF-? axis. Cell stem cell, 29(1), 70.

Chakraborty M, et al. (2021) Mechanical Stiffness Controls Dendritic Cell Metabolism and Function. Cell reports, 34(2), 108609.

Glogowska E, et al. (2021) Piezo1 and Piezo2 foster mechanical gating of K2P channels. Cell reports, 37(9), 110070.