

Resource Summary Report

Generated by [RRID](#) on Jul 30, 2026

[B6.129X1-Trpv1^{tm1Jul/J}](#)

RRID:IMSR_JAX:003770

Type: Organism

Proper Citation

RRID:IMSR_JAX:003770

Organism Information

URL: <https://www.jax.org/strain/003770>

Proper Citation: RRID:IMSR_JAX:003770

Description: Mus musculus with name B6.129X1-Trpv1^{tm1Jul/J} from IMSR.

Species: Mus musculus

Synonyms: B6.129S4-Trpv1/J. B6.129S4-Vr1

Notes: gene symbol note: transient receptor potential cation channel; subfamily V; member 1; mutant strain|congenic strain: Trpv1

Affected Gene: transient receptor potential cation channel; subfamily V; member 1

Genomic Alteration: targeted mutation 1; David Julius

Catalog Number: JAX:003770

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6.129X1-Trpv1^{tm1Jul/J}

Record Creation Time: 20250513T053641+0000

Record Last Update: 20260725T044350+0000

Ratings and Alerts

No rating or validation information has been found for B6.129X1-Trpv1^{tm1Jul/J}.

No alerts have been found for B6.129X1-Trpv1^{tm1Jul/J}.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 42 mentions in open access literature.

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

Bloomer H, et al. (2025) Triple-Negative Breast Cancer Cells Activate Sensory Neurons via TRPV1 to Drive Nerve Outgrowth and Tumor Progression. bioRxiv : the preprint server for biology.

Abd El Hay MY, et al. (2025) Diverging roles of TRPV1 and TRPM2 in warm-temperature detection. eLife, 13.

Ren L, et al. (2025) Sensory neurons drive pancreatic cancer progression through glutamatergic neuron-cancer pseudo-synapses. Cancer cell.

Pizzano M, et al. (2024) Transient Receptor Potential Vanilloid-1 Channels Facilitate Axonal Degeneration of Corneal Sensory Nerves in Dry Eye. The American journal of pathology, 194(5), 810.

Darragh LB, et al. (2024) Sensory nerve release of CGRP increases tumor growth in HNSCC by suppressing TILs. Med (New York, N.Y.), 5(3), 254.

Silverman HA, et al. (2023) Transient Receptor Potential Ankyrin-1-expressing vagus nerve fibers mediate IL-1 β induced hypothermia and reflex anti-inflammatory responses. Molecular medicine (Cambridge, Mass.), 29(1), 4.

Landini L, et al. (2023) Acetaldehyde via CGRP receptor and TRPA1 in Schwann cells mediates ethanol-evoked periorbital mechanical allodynia in mice: relevance for migraine. Journal of biomedical science, 30(1), 28.

Scheff NN, et al. (2022) Oral cancer induced TRPV1 sensitization is mediated by PAR2 signaling in primary afferent neurons innervating the cancer microenvironment. Scientific reports, 12(1), 4121.

De Logu F, et al. (2022) Schwann cell endosome CGRP signals elicit periorbital mechanical allodynia in mice. Nature communications, 13(1), 646.

Lacerda JT, et al. (2022) Lack of TRPV1 Channel Modulates Mouse Gene Expression and Liver Proteome with Glucose Metabolism Changes. International journal of molecular sciences, 23(13).

Zhang Y, et al. (2022) Protein disulfide isomerase modulation of TRPV1 controls heat hyperalgesia in chronic pain. *Cell reports*, 39(1), 110625.

Xie Z, et al. (2022) A brain-to-spinal sensorimotor loop for repetitive self-grooming. *Neuron*, 110(5), 874.

Lei S, et al. (2021) Activation of V1a vasopressin receptors excite subicular pyramidal neurons by activating TRPV1 and depressing GIRK channels. *Neuropharmacology*, 190, 108565.

Wilzopolski J, et al. (2021) TRPV1 and TRPA1 Channels Are Both Involved Downstream of Histamine-Induced Itch. *Biomolecules*, 11(8).

Egaña-Huguet J, et al. (2021) The Absence of the Transient Receptor Potential Vanilloid 1 Directly Impacts on the Expression and Localization of the Endocannabinoid System in the Mouse Hippocampus. *Frontiers in neuroanatomy*, 15, 645940.

Nagaoka K, et al. (2021) Striatal TRPV1 activation by acetaminophen ameliorates dopamine D2 receptor antagonist-induced orofacial dyskinesia. *JCI insight*, 6(10).

Luo X, et al. (2021) IL-23/IL-17A/TRPV1 axis produces mechanical pain via macrophage-sensory neuron crosstalk in female mice. *Neuron*, 109(17), 2691.

Wang F, et al. (2021) A basophil-neuronal axis promotes itch. *Cell*, 184(2), 422.

Zhao F, et al. (2021) Surfactant cocamide monoethanolamide causes eye irritation by activating nociceptor TRPV1 channels. *British journal of pharmacology*, 178(17), 3448.

Delamere NA, et al. (2020) Signaling Between TRPV1/TRPV4 and Intracellular Hydrostatic Pressure in the Mouse Lens. *Investigative ophthalmology & visual science*, 61(6), 58.