

Resource Summary Report

Generated by [NIF](#) on Sep 10, 2026

B6;129P-Trpa1^{tm1Kyk}w/J

RRID:IMSR_JAX:006401

Type: Organism

Proper Citation

RRID:IMSR_JAX:006401

Organism Information

URL: <https://www.jax.org/strain/006401>

Proper Citation: RRID:IMSR_JAX:006401

Description: Mus musculus with name B6;129P-Trpa1^{tm1Kyk}w/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: transient receptor potential cation channel; subfamily A; member 1; mutant stock: Trpa1

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

Genomic Alteration: targeted mutation 1; Kelvin Y Kwan

Catalog Number: JAX:006401

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: B6;129P-Trpa1^{tm1Kyk}w/J

Record Creation Time: 20250513T053656+0000

Record Last Update: 20260905T044440+0000

Ratings and Alerts

No rating or validation information has been found for B6;129P-Trpa1^{tm1Kyk}w/J.

No alerts have been found for B6;129P-Trpa1^{tm1Kyk}w/J.

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 [NIF](#) .

Drew VJ, et al. (2026) A TREK-1/AQP4/TRPA1/BDNF Signaling Axis Is Associated With Astrocytic Volume Transients, Synaptic Plasticity, and Spatial Memory. *Glia*, 74(9), e70195.

Voisin T, et al. (2026) Skin inflammation and itch response are independently regulated by distinct nociceptor subsets. *Immunity*, 59(5), 1237.

Marini M, et al. (2025) Anti-nociceptive action of leonurine through TRPA1 and TRPV4 channels modulation. *British journal of pharmacology*.

Hur KH, et al. (2024) Transient receptor potential ankyrin 1 channel modulates the abuse-related mechanisms of methamphetamine through interaction with dopamine transporter. *British journal of pharmacology*, 181(16), 2794.

M??ki-Opas I, et al. (2023) TRPA1 as a potential factor and drug target in scleroderma: dermal fibrosis and alternative macrophage activation are attenuated in TRPA1-deficient mice in bleomycin-induced experimental model of scleroderma. *Arthritis research & therapy*, 25(1), 12.

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.

Lu P, et al. (2023) MrgprA3-expressing pruriceptors drive pruritogen-induced alloeknesis through mechanosensitive Piezo2 channel. *Cell reports*, 42(4), 112283.

Lee K, et al. (2023) Ultrasonocoverslip: In-vitro platform for high-throughput assay of cell type-specific neuromodulation with ultra-low-intensity ultrasound stimulation. *Brain stimulation*, 16(5), 1533.

Landini L, et al. (2023) Schwann cell insulin-like growth factor receptor type-1 mediates metastatic bone cancer pain in mice. *Brain, behavior, and immunity*, 110, 348.

Barioni NO, et al. (2022) Novel oxygen sensing mechanism in the spinal cord involved in cardiorespiratory responses to hypoxia. *Science advances*, 8(12), eabm1444.

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

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

Xie Z, et al. (2022) The gut-to-brain axis for toxin-induced defensive responses. *Cell*, 185(23), 4298.

Forni MF, et al. (2021) An Immunometabolic Shift Modulates Cytotoxic Lymphocyte Activation During Melanoma Progression in TRPA1 Channel Null Mice. *Frontiers in oncology*, 11, 667715.

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

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

Chen Z, et al. (2021) Interleukin-33 Promotes Serotonin Release from Enterochromaffin Cells for Intestinal Homeostasis. *Immunity*, 54(1), 151.

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

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.

De Logu F, et al. (2021) Peripheral Nerve Resident Macrophages and Schwann Cells Mediate Cancer-Induced Pain. *Cancer research*, 81(12), 3387.