

Resource Summary Report

Generated by [SPARC SAWG](#) on Jul 29, 2026

STOCK Ptch1^{tm1Mps}/J

RRID:IMSR_JAX:003081

Type: Organism

Proper Citation

RRID:IMSR_JAX:003081

Organism Information

URL: <https://www.jax.org/strain/003081>

Proper Citation: RRID:IMSR_JAX:003081

Description: Mus musculus with name STOCK Ptch1^{tm1Mps}/J from IMSR.

Species: Mus musculus

Synonyms: B6;129-Ptch1/J. B6;129-Ptch/J

Notes: gene symbol note: patched 1|beta-galactosidase; mutant stock: Ptch1|lacZ

Affected Gene: patched 1|beta-galactosidase

Genomic Alteration: targeted mutation 1; Matthew P Scott

Catalog Number: JAX:003081

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: STOCK Ptch1^{tm1Mps}/J

Record Creation Time: 20250513T053637+0000

Record Last Update: 20260725T044346+0000

Ratings and Alerts

No rating or validation information has been found for STOCK Ptch1^{tm1Mps}/J.

No alerts have been found for STOCK Ptch1^{tm1Mps}/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 18 mentions in open access literature.

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

Gao J, et al. (2025) Single-cell transcriptomic sequencing identifies subcutaneous patient-derived xenograft recapitulated medulloblastoma. *Animal models and experimental medicine*, 8(3), 458.

Wang W, et al. (2025) Chromatin modification abnormalities by CHD7 and KMT2C loss promote medulloblastoma progression. *Cell reports*, 44(5), 115673.

Fan JJ, et al. (2025) A forward genetic screen identifies potassium channel essentiality in SHH medulloblastoma maintenance. *Developmental cell*, 60(11), 1532.

Shiraishi R, et al. (2024) Cancer-specific epigenome identifies oncogenic hijacking by nuclear factor I family proteins for medulloblastoma progression. *Developmental cell*, 59(17), 2302.

Yang F, et al. (2022) A Druggable UHRF1/DNMT1/GLI Complex Regulates Sonic Hedgehog-Dependent Tumor Growth. *Molecular cancer research : MCR*, 20(11), 1598.

Xie Y, et al. (2022) Astrocyte-neuron crosstalk through Hedgehog signaling mediates cortical synapse development. *Cell reports*, 38(8), 110416.

Ramachandran J, et al. (2022) Hedgehog regulation of epithelial cell state and morphogenesis in the larynx. *eLife*, 11.

George J, et al. (2022) Cancer stem cells, not bulk tumor cells, determine mechanisms of resistance to SMO inhibitors. *Cancer research communications*, 2(6), 402.

Luo W, et al. (2021) Single-cell spatial transcriptomic analysis reveals common and divergent features of developing postnatal granule cerebellar cells and medulloblastoma. *BMC biology*, 19(1), 135.

Fujii K, et al. (2021) Controlling tissue patterning by translational regulation of signaling transcripts through the core translation factor eIF3c. *Developmental cell*, 56(21), 2928.

Somatilaka BN, et al. (2020) Ankmy2 Prevents Smoothened-Independent Hyperactivation of the Hedgehog Pathway via Cilia-Regulated Adenylyl Cyclase Signaling. *Developmental cell*, 54(6), 710.

Yao M, et al. (2020) Astrocytic trans-Differentiation Completes a Multicellular Paracrine Feedback Loop Required for Medulloblastoma Tumor Growth. *Cell*, 180(3), 502.

- Selvadurai HJ, et al. (2020) Medulloblastoma Arises from the Persistence of a Rare and Transient Sox2+ Granule Neuron Precursor. *Cell reports*, 31(2), 107511.
- Zhu D, et al. (2018) BAI1 Suppresses Medulloblastoma Formation by Protecting p53 from Mdm2-Mediated Degradation. *Cancer cell*, 33(6), 1004.
- Kopinke D, et al. (2017) Ciliary Hedgehog Signaling Restricts Injury-Induced Adipogenesis. *Cell*, 170(2), 340.
- Brennan-Crispi DM, et al. (2015) Crosstalk between Desmoglein 2 and Patched 1 accelerates chemical-induced skin tumorigenesis. *Oncotarget*, 6(11), 8593.
- Yang R, et al. (2015) Cell Division Mode Change Mediates the Regulation of Cerebellar Granule Neurogenesis Controlled by the Sonic Hedgehog Signaling. *Stem cell reports*, 5(5), 816.
- Lastowska M, et al. (2013) Identification of a neuronal transcription factor network involved in medulloblastoma development. *Acta neuropathologica communications*, 1, 35.