

Resource Summary Report

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

STOCK Tg(Slc1a3-cre/ERT)1Nat/J

RRID:IMSR_JAX:012586

Type: Organism

Proper Citation

RRID:IMSR_JAX:012586

Organism Information

URL: <https://www.jax.org/strain/012586>

Proper Citation: RRID:IMSR_JAX:012586

Description: Mus musculus with name STOCK Tg(Slc1a3-cre/ERT)1Nat/J from IMSR.

Species: Mus musculus

Synonyms: B6.Cg-Tg(Slc1a3-cre/ERT)1Nat/J

Notes: gene symbol note: transgene insertion 1; Jeremy Nathans||solute carrier family 1 (glial high affinity glutamate transporter); member 3; mutant stock: Tg(Slc1a3-cre/ERT)1Nat||Slc1a3

Affected Gene: transgene insertion 1; Jeremy Nathans||solute carrier family 1 (glial high affinity glutamate transporter); member 3

Genomic Alteration: transgene insertion 1; Jeremy Nathans

Catalog Number: JAX:012586

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: STOCK Tg(Slc1a3-cre/ERT)1Nat/J

Record Creation Time: 20250513T053721+0000

Record Last Update: 20260725T044430+0000

Ratings and Alerts

No rating or validation information has been found for STOCK Tg(Slc1a3-cre/ERT)1Nat/J.

No alerts have been found for STOCK Tg(Slc1a3-cre/ERT)1Nat/J.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 30 mentions in open access literature.

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

Pena-Ortiz MA, et al. (2026) Astrocytic Chromatin Remodeler ATRX Gates Hippocampal Memory Consolidation Through Metabolic and Synaptic Regulation. *Glia*, 74(1), e70098.

Fuhrmann F, et al. (2025) Three-photon in vivo imaging of neurons and glia in the medial prefrontal cortex with sub-cellular resolution. *Communications biology*, 8(1), 795.

Shafiq S, et al. (2025) Microglial deficiency in the ATRX chromatin remodeler elicits a viral mimicry immune response that impacts neuronal function and behavior. *PLoS biology*, 23(9), e3002659.

Heo EY, et al. (2025) Impaired neuromodulator crosstalk delays arousal-dependent astroglia Ca²⁺ activation in mouse models of Alzheimer's disease. *iScience*, 28(8), 113120.

Ghazale H, et al. (2025) MicroRNA-mediated neuronal detargeting alters astrocyte cell fate conversion trajectories in vivo. *Communications biology*, 8(1), 1750.

Min R, et al. (2024) Inhibitory maturation and ocular dominance plasticity in mouse visual cortex require astrocyte CB1 receptors. *iScience*, 27(12), 111410.

Yang JL, et al. (2023) Transient neurogenesis in ischemic cortex from Sox2⁺ astrocytes. *Neural regeneration research*, 18(7), 1521.

Gau YA, et al. (2023) Multicore fiber optic imaging reveals that astrocyte calcium activity in the cerebral cortex is modulated by internal motivational state. *bioRxiv : the preprint server for biology*.

Xie Y, et al. (2023) New AAV tools fail to detect Neurod1-mediated neuronal conversion of Müller glia and astrocytes in vivo. *EBioMedicine*, 90, 104531.

Tworak A, et al. (2023) Rapid RGR-dependent visual pigment recycling is mediated by the RPE and specialized Müller glia. *Cell reports*, 42(8), 112982.

Mani A, et al. (2023) A circuit suppressing retinal drive to the optokinetic system during fast image motion. *Nature communications*, 14(1), 5142.

Xie Y, et al. (2022) Critical examination of Ptbp1-mediated glia-to-neuron conversion in the mouse retina. *Cell reports*, 39(11), 110960.

Nsiah NY, et al. (2022) Destabilizing COXIV in Müller Glia Increases Retinal Glycolysis and Alters Scotopic Electroretinogram. *Cells*, 11(23).

Shao A, et al. (2022) Arap1 loss causes retinal pigment epithelium phagocytic dysfunction and subsequent photoreceptor death. *Disease models & mechanisms*, 15(7).

Pena-Ortiz MA, et al. (2022) Selective isolation of mouse glial nuclei optimized for reliable downstream omics analyses. *Journal of neuroscience methods*, 369, 109480.

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

Tworig JM, et al. (2021) Excitatory neurotransmission activates compartmentalized calcium transients in Müller glia without affecting lateral process motility. *eLife*, 10.

Kellner V, et al. (2021) Dual metabotropic glutamate receptor signaling enables coordination of astrocyte and neuron activity in developing sensory domains. *Neuron*, 109(16), 2545.

Luo L, et al. (2020) Optimizing Nervous System-Specific Gene Targeting with Cre Driver Lines: Prevalence of Germline Recombination and Influencing Factors. *Neuron*, 106(1), 37.

Zhang N, et al. (2020) GLAST-CreERT2 mediated deletion of GDNF increases brain damage and exacerbates long-term stroke outcomes after focal ischemic stroke in mouse model. *Glia*, 68(11), 2395.