

# Resource Summary Report

Generated by [NIF](#) on Sep 2, 2026

## STOCK Slc32a1<sup>tm1Lowl</sup>/J

RRID:IMSR\_JAX:012897

Type: Organism

### Proper Citation

RRID:IMSR\_JAX:012897

### Organism Information

**URL:** <https://www.jax.org/strain/012897>

**Proper Citation:** RRID:IMSR\_JAX:012897

**Description:** Mus musculus with name STOCK Slc32a1<sup>tm1Lowl</sup>/J from IMSR.

**Species:** Mus musculus

**Notes:** gene symbol note: solute carrier family 32 (GABA vesicular transporter); member 1; mutant stock: Slc32a1

**Affected Gene:** solute carrier family 32 (GABA vesicular transporter); member 1

**Genomic Alteration:** targeted mutation 1; Bradford B Lowell

**Catalog Number:** JAX:012897

**Database:** JAX Mice and Services

**Database Abbreviation:** JAX

**Availability:** sperm

**Organism Name:** STOCK Slc32a1<sup>tm1Lowl</sup>/J

**Record Creation Time:** 20250513T053723+0000

**Record Last Update:** 20260829T045031+0000

### Ratings and Alerts

No rating or validation information has been found for STOCK Slc32a1<sup>tm1Lowl</sup>/J.

No alerts have been found for STOCK Slc32a1<sup>tm1Lowl</sup>/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 [NIF](#) .

Elmendorf AJ, et al. (2026) GCGR agonism requires GABAergic signaling in the medial basal hypothalamus to promote weight loss in obese mice. *Molecular metabolism*, 105, 102328.

Peng Y, et al. (2026) A GABAergic network from AVP- to VIP-neurons in the suprachiasmatic nucleus sets the timing of circadian behavior rhythms. *PLoS biology*, 24(3), e3003706.

de Sousa LMM, et al. (2026) Loss of GABAergic transmission from somatostatin neurons leads to starvation, which is attenuated by a palatable diet. *Life sciences*, 398, 124455.

van der Heijden ME, et al. (2024) Cerebellar nuclei cells produce distinct pathogenic spike signatures in mouse models of ataxia, dystonia, and tremor. *eLife*, 12.

Lyons-Warren AM, et al. (2023) Co-transmitting interneurons in the mouse olfactory bulb regulate olfactory detection and discrimination. *Cell reports*, 42(12), 113471.

Xu Y, et al. (2023) Lateral septum as a melanocortin downstream site in obesity development. *Cell reports*, 42(5), 112502.

Summers MT, et al. (2022) Distinct inhibitory pathways control velocity and directional tuning in the mouse retina. *Current biology : CB*, 32(10), 2130.

Jain V, et al. (2022) Gain control by sparse, ultra-slow glycinergic synapses. *Cell reports*, 38(8), 110410.

Goral RO, et al. (2022) Loss of GABA co-transmission from cholinergic neurons impairs behaviors related to hippocampal, striatal, and medial prefrontal cortex functions. *Frontiers in behavioral neuroscience*, 16, 1067409.

van der Heijden ME, et al. (2022) Influence of data sampling methods on the representation of neural spiking activity in vivo. *iScience*, 25(11), 105429.

Duan ZRS, et al. (2020) GABAergic Restriction of Network Dynamics Regulates Interneuron Survival in the Developing Cortex. *Neuron*, 105(1), 75.

Jain V, et al. (2020) The functional organization of excitation and inhibition in the dendrites of mouse direction-selective ganglion cells. *eLife*, 9.

Chen Q, et al. (2020) Preserving inhibition with a disinhibitory microcircuit in the retina. *eLife*, 9.

Sinha R, et al. (2020) LRRTM4: A Novel Regulator of Presynaptic Inhibition and Ribbon Synapse Arrangements of Retinal Bipolar Cells. *Neuron*, 105(6), 1007.

Gouwens NW, et al. (2020) Integrated Morphoelectric and Transcriptomic Classification of Cortical GABAergic Cells. *Cell*, 183(4), 935.

Chen Y, et al. (2019) Sustained NPY signaling enables AgRP neurons to drive feeding. *eLife*, 8.

Peixoto RT, et al. (2019) Abnormal Striatal Development Underlies the Early Onset of Behavioral Deficits in Shank3B<sup>-/-</sup> Mice. *Cell reports*, 29(7), 2016.

Holly EN, et al. (2019) Striatal Low-Threshold Spiking Interneurons Regulate Goal-Directed Learning. *Neuron*, 103(1), 92.

van der Heijden ME, et al. (2018) Loss of Atoh1 from neurons regulating hypoxic and hypercapnic chemoresponses causes neonatal respiratory failure in mice. *eLife*, 7.

Kim T, et al. (2017) Inhibitory Control of Feature Selectivity in an Object Motion Sensitive Circuit of the Retina. *Cell reports*, 19(7), 1343.