Resource Summary Report

Generated by ASWG on Aug 10, 2026

B6.129-Shank3^{tm2Gfng}/J

RRID:IMSR_JAX:017688
Type: Organism

Proper Citation

RRID:IMSR_JAX:017688

Organism Information

URL: https://www.jax.org/strain/017688

Proper Citation: RRID:IMSR_JAX:017688

Description: Mus musculus with name B6.129-Shank3^{tm2Gfng}/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: SH3 and multiple ankyrin repeat domains 3; mutant strain|congenic strain: Shank3

Affected Gene: SH3 and multiple ankyrin repeat domains 3

Genomic Alteration: targeted mutation 2; Guoping Feng

Catalog Number: JAX:017688

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6.129-Shank3^{tm2Gfng}/J

Record Creation Time: 20250513T053733+0000

Record Last Update: 20260808T050938+0000

Ratings and Alerts

No rating or validation information has been found for B6.129-Shank3^{tm2Gfng}/J.

No alerts have been found for B6.129-Shank3^{tm2Gfng}/J.

Data and Source Information

Source: Integrated Animals

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 25 mentions in open access literature.

Listed below are recent publications. The full list is available at ASWG .

Wehle DT, et al. (2026) Dissociation of the mTOR Protein Interaction Network Following Neuronal Activation Is Altered by Shank3 Mutation. Journal of neurochemistry, 170(1), e70353.

Wu CH, et al. (2025) Learning-Associated Flexibility of Cortical Taste Coding Is Impaired in Shank3 Knockout Mice. bioRxiv : the preprint server for biology.

Bortolozzo-Gleich MH, et al. (2025) Impaired vasopressin neuromodulation of the lateral septum leads to social behavior deficits in Shank3B+/- male mice. Nature communications, 16(1), 6783.

Eberly GL, et al. (2025) Shank3 mutation manifests in abnormal gastrointestinal morphology and function in mice. Frontiers in neuroscience, 19, 1552369.

Wen W, et al. (2024) Modular Arrangement of Synaptic and Intrinsic Homeostatic Plasticity within Visual Cortical Circuits. bioRxiv : the preprint server for biology.

Ba?ová Z, et al. (2024) Shank3 deficiency alters midbrain GABAergic neuron morphology, GABAergic markers and synaptic activity in primary striatal neurons. Molecular brain, 17(1), 71.

Wang YZ, et al. (2024) Neuron type-specific proteomics reveals distinct Shank3 proteoforms in iSPNs and dSPNs lead to striatal synaptopathy in Shank3B-/- mice. Molecular psychiatry.

Pan YD, et al. (2024) Intermittent Hypobaric Hypoxia Ameliorates Autistic-Like Phenotypes in Mice. The Journal of neuroscience : the official journal of the Society for Neuroscience, 44(7).

Guo B, et al. (2024) Restoring thalamocortical circuit dysfunction by correcting HCN channelopathy in Shank3 mutant mice. Cell reports. Medicine, 5(5), 101534.

Chung M, et al. (2024) Conditional knockout of Shank3 in the ventral CA1 by quantitative in vivo genome-editing impairs social memory in mice. Nature communications, 15(1), 4531.

Chhabra S, et al. (2023) Striatal increase of dopamine receptor 2 density in idiopathic and syndromic mouse models of autism spectrum disorder. Frontiers in psychiatry, 14, 1110525.

Nardi L, et al. (2023) Neuroanatomical changes of ionotropic glutamatergic and GABAergic receptor densities in male mice modeling idiopathic and syndromic autism spectrum disorder. Frontiers in psychiatry, 14, 1199097.

Maloney SE, et al. (2023) A comprehensive assay of social motivation reveals sex-specific roles of autism-associated genes and oxytocin. Cell reports methods, 3(6), 100504.

Tao K, et al. (2022) Disrupted social memory ensembles in the ventral hippocampus underlie social amnesia in autism-associated Shank3 mutant mice. Molecular psychiatry, 27(4), 2095.

Pillerová M, et al. (2022) Neuromotor Development in the Shank3 Mouse Model of Autism Spectrum Disorder. Brain sciences, 12(7).

Otazu GH, et al. (2021) Neurodevelopmental malformations of the cerebellum and neocortex in the Shank3 and Cntnap2 mouse models of autism. Neuroscience letters, 765, 136257.

Tatavarty V, et al. (2020) Autism-Associated Shank3 Is Essential for Homeostatic Compensation in Rodent V1. Neuron, 106(5), 769.

Wang L, et al. (2020) A kinome-wide RNAi screen identifies ERK2 as a druggable regulator of Shank3 stability. Molecular psychiatry, 25(10), 2504.

Vyas Y, et al. (2020) Influence of maternal zinc supplementation on the development of autism-associated behavioural and synaptic deficits in offspring Shank3-knockout mice. Molecular brain, 13(1), 110.

Reichova A, et al. (2020) Abnormal neuronal morphology and altered synaptic proteins are restored by oxytocin in autism-related SHANK3 deficient model. Molecular and cellular endocrinology, 518, 110924.