Resource Summary Report

Generated by RRID on Aug 2, 2026

B6.129S4-Grin1^{tm2Stl}/J

RRID:IMSR_JAX:005246
Type: Organism

Proper Citation

RRID:IMSR_JAX:005246

Organism Information

URL: https://www.jax.org/strain/005246

Proper Citation: RRID:IMSR_JAX:005246

Description: Mus musculus with name B6.129S4-Grin1^{tm2Stl}/J from IMSR.

Species: Mus musculus

Notes: gene symbol note: glutamate receptor; ionotropic; NMDA1 (zeta 1); mutant strain|congenic strain: Grin1

Affected Gene: glutamate receptor; ionotropic; NMDA1 (zeta 1)

Genomic Alteration: targeted mutation 2; Susumu Tonegawa

Catalog Number: JAX:005246

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: live

Organism Name: B6.129S4-Grin1^{tm2Stl}/J

Record Creation Time: 20250513T053649+0000

Record Last Update: 20260801T050353+0000

Ratings and Alerts

No rating or validation information has been found for B6.129S4-Grin1^{tm2Stl}/J.

No alerts have been found for B6.129S4-Grin1^{tm2Stl}/J.

Data and Source Information

Source: Integrated Animals

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 39 mentions in open access literature.

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

Kim JH, et al. (2025) Discrete interneuron subsets participate in GluN1/GluN3A excitatory glycine receptor (eGlyR)-mediated regulation of hippocampal network activity throughout development and evolution. bioRxiv : the preprint server for biology.

Ruggiero A, et al. (2025) NMDA receptors regulate the firing rate set point of hippocampal circuits without altering single-cell dynamics. Neuron, 113(2), 244.

Wong YT, et al. (2024) Artificial fluorescent sensor reveals pre-synaptic NMDA receptors switch cholecystokinin release and LTP in the hippocampus. Journal of neurochemistry, 168(9), 2621.

Furon J, et al. (2023) Blood tissue Plasminogen Activator (tPA) of liver origin contributes to neurovascular coupling involving brain endothelial N-Methyl-D-Aspartate (NMDA) receptors. Fluids and barriers of the CNS, 20(1), 11.

Nakagawa N, et al. (2023) Golgi polarity shift instructs dendritic refinement in the neonatal cortex by mediating NMDA receptor signaling. Cell reports, 42(8), 112843.

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

Fujimoto S, et al. (2023) Activity-dependent local protection and lateral inhibition control synaptic competition in developing mitral cells in mice. Developmental cell, 58(14), 1221.

Hayden DJ, et al. (2023) Electrophysiological Signatures of Visual Recognition Memory across All Layers of Mouse V1. The Journal of neuroscience : the official journal of the Society for Neuroscience, 43(44), 7307.

Li H, et al. (2023) Multiple dynamic interactions from basal ganglia direct and indirect pathways mediate action selection. eLife, 12.

Hayden DJ, et al. (2023) Electrophysiological signatures of visual recognition memory across all layers of mouse V1. bioRxiv : the preprint server for biology.

Chaloner FA, et al. (2022) Multiple Mechanistically Distinct Timescales of Neocortical Plasticity Occur During Habituation. Frontiers in cellular neuroscience, 16, 840057.

Sonneborn A, et al. (2021) Norepinephrine transporter antagonism prevents dopamine-dependent synaptic plasticity in the mouse dorsal hippocampus. Neuroscience letters,

740, 135450.

Guyon N, et al. (2021) Network Asynchrony Underlying Increased Broadband Gamma Power. The Journal of neuroscience : the official journal of the Society for Neuroscience, 41(13), 2944.

Chipman PH, et al. (2021) Astrocyte GluN2C NMDA receptors control basal synaptic strengths of hippocampal CA1 pyramidal neurons in the stratum radiatum. eLife, 10.

Léger C, et al. (2020) Glutamate controls vessel-associated migration of GABA interneurons from the pial migratory route via NMDA receptors and endothelial protease activation. Cellular and molecular life sciences : CMLS, 77(10), 1959.

Léger C, et al. (2020) In utero alcohol exposure exacerbates endothelial protease activity from pial microvessels and impairs GABA interneuron positioning. Neurobiology of disease, 145, 105074.

Pu?cian A, et al. (2020) NMDAR-Dependent Emergence of Behavioral Representation in Primary Visual Cortex. Cell reports, 32(4), 107970.

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.

Fernandes AB, et al. (2020) Postingestive Modulation of Food Seeking Depends on Vagus-Mediated Dopamine Neuron Activity. Neuron, 106(5), 778.

Vesuna S, et al. (2020) Deep posteromedial cortical rhythm in dissociation. Nature, 586(7827), 87.