

Resource Summary Report

Generated by ASWG on Aug 9, 2026

B6N.129-Gria1^{tm2Rsp/J}

RRID:IMSR_JAX:019012

Type: Organism

Proper Citation

RRID:IMSR_JAX:019012

Organism Information

URL: <https://www.jax.org/strain/019012>

Proper Citation: RRID:IMSR_JAX:019012

Description: Mus musculus with name B6N.129-Gria1^{tm2Rsp/J} from IMSR.

Species: Mus musculus

Notes: gene symbol note: glutamate receptor; ionotropic; AMPA1 (alpha 1); mutant strain|congenic strain: Gria1

Affected Gene: glutamate receptor; ionotropic; AMPA1 (alpha 1)

Genomic Alteration: targeted mutation 2; Rolf Sprengel

Catalog Number: JAX:019012

Database: JAX Mice and Services

Database Abbreviation: JAX

Availability: sperm

Organism Name: B6N.129-Gria1^{tm2Rsp/J}

Record Creation Time: 20250513T053740+0000

Record Last Update: 20260808T050943+0000

Ratings and Alerts

No rating or validation information has been found for B6N.129-Gria1^{tm2Rsp/J}.

No alerts have been found for B6N.129-Gria1^{tm2Rsp/J}.

Data and Source Information

Source: [Integrated Animals](#)

Source Database: JAX Mice and Services

Usage and Citation Metrics

We found 8 mentions in open access literature.

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

Willems TS, et al. (2025) GluA1-containing AMPA receptors are necessary for sparse memory engram formation. *Neurobiology of learning and memory*, 218, 108031.

Eltokhi A, et al. (2023) Distinct effects of AMPAR subunit depletion on spatial memory. *iScience*, 26(11), 108116.

Kilonzo K, et al. (2022) Distinct contributions of GluA1-containing AMPA receptors of different hippocampal subfields to salience processing, memory and impulse control. *Translational psychiatry*, 12(1), 102.

Watson JF, et al. (2021) AMPA receptor anchoring at CA1 synapses is determined by N-terminal domain and TARP $\gamma 8$ interactions. *Nature communications*, 12(1), 5083.

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.

Ho H, et al. (2020) An inhalation anaesthesia approach for neonatal mice allowing streamlined stereotactic injection in the brain. *Journal of neuroscience methods*, 342, 108824.

Watson JF, et al. (2017) Synaptic transmission and plasticity require AMPA receptor anchoring via its N-terminal domain. *eLife*, 6.

Maksimovic M, et al. (2014) Chronic treatment with mood-stabilizers attenuates abnormal hyperlocomotion of GluA1-subunit deficient mice. *PloS one*, 9(6), e100188.