

B6N.129-*Gria1*^{tm2Rsp} /J
Stock No: **019012** | GluR-A^{2lox}

 [Congenic, Targeted Mutation](#)

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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ion channel pore in cells/tissues expressing Cre recombinase. These mice are useful in applications related to the study of behavioral, social and cognitive abnormalities, hippocampal synaptic transmission/plasticity, nociception and short and long term memory, as well as neuropsychiatric disorders such as schizophrenia and depression/mania.

Donating Investigator

Rolf Sprengel, Max Planck Institute for Medical Res

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GENETIC OVERVIEW

Genetic Background

Generation

Gria1^{tm2Rsp}

Allele Type

Targeted (Conditional ready
(e.g. floxed), No functional
change)

Gene Symbol

Gria1

Gene Name

glutamate receptor, ionotropic, AMPA1 (alpha 1)

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

Sensorineural Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W P R I C E L I S T

Details

Detailed Description

The GluA1^{fl} floxed allele (also called GluR1^{fllox}, GluR-A^{2lox}, or AQ-2lox allele) has *loxP* sites flanking exon 11. Homozygous mice are viable and fertile. When bred to mice that express Cre recombinase, the resulting offspring will have the glutamate receptor transmembrane domain ion channel pore deleted in *cre*-expressing tissues. These GluA1^{fl} mice may be useful in generating tissue-specific AMPA-type glutamate receptor deletions. Specific examples are described below.

When GluA1^{fl} mice are bred to a strain expressing Cre recombinase in germ-line or embryonic tissues, the resulting mice are useful in studying the pan deletion of glutamate receptor function. GluA1 knockout mice are also distributed from The Jackson Laboratory Repository as Stock No. [019011](#).

When GluA1^{fl} mice are bred to a strain with Cre recombinase in parvalbumin-expressing cells (see Stock Nos. [012358](#), [010777](#), [008069](#)), the resulting mice allow studying interneurons and hippocampus function.

When GluA1^{fl} mice are bred to a strain with Cre recombinase in dopamine neurotransmitter transporter-expressing cells (see Stock Nos. [016583](#) or [006660](#)), the resulting mice allow studying dopaminergic neurons.

When GluA1^{fl} mice are bred to a strain with Cre recombinase in Mnx1-expressing cells (HB9^{Cre}; Stock No [006600](#)), the resulting mice allow neurodevelopmental studies of homeobox genes, motor neurons, and a subpopulation of spinal cord interneurons.

When GluA1^{fl} mice are bred to a strain with tamoxifen-inducible Cre recombinase expression in glial high affinity glutamate transporter-expressing cells (see GLAST-CreER; Stock No [012586](#)), the resulting mice allow neurodevelopmental studies of glia and neural progenitor cells.

Development

Control Suggestions

Selected References

– Genetics

+ [Gria1^{tm2Rsp}](#)

– Disease/Phenotype

+ [Disease Terms](#)

+ [Research Areas By Phenotype](#)

+ [Mammalian Phenotype Terms by Genotype](#)

+ [References](#)

– Technical Support

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

Standard PCR:[Gria1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

Citation

When using the GluR-A^{2lox} mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #019012 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)

➔ Pricing & Availability



Cryo
Recovery

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Gria1<tm2Rsp>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6N.129-Gria1<tm2Rsp>/J	\$2595.00
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The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

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Q U E S T I O N S A B O U T T E R M S O F U S E

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LICENSING INFORMATION

Phone: 207-288-6470

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