

B6.129S6-Gria1^{tm7Rlh} /J

Stock No: **024418**

 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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increasing the probability of synaptic plasticity.

Donating Investigator

Richard L Huganir, Johns Hopkins University School of Medicine

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GENETIC OVERVIEW

Genetic Background

Generation

Gria1^{tm7Rlh}

Alele Type

Targeted

Gene Symbol

Gria1

Gene Name

glutamate receptor, ionotropic, AMPA1 (alpha 1)

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology 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

Phosphorylation of *Gria1* (glutamate receptor, ionotropic, AMPA1 (alpha 1); also known as GluA1) has been proposed to regulate receptor trafficking and synaptic transmission and plasticity.

These mice carry S831D and S845D amino acid substitutions in the mouse *Gria1* gene that are phosphomimetic (mimic a phosphorylated protein). Mice show normal total and surface expression and subcellular localization of GLUA1 as well as intact basal synaptic transmission. Unlike wildtype animals, mutant mice show long-term potentiation (LTP) induced with a weak 10-Hz stimulation. Evidence indicates that phosphorylation of GLUA1 at S831 and S845 is sufficient to lower the threshold for LTP induction, increasing the probability of synaptic plasticity.

Development

Control Suggestions

Selected References

Genetics

Gria1^{tm7Rlh}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

– 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

Sanger sequencing:[Gria1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Homozygotes and heterozygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6.129S6-*Gria1*^{tm7Rlh}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #024418 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 for <i>Gria1</i> <tm7Rlh>	\$2,854.50

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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

Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection



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TOMORROW'S CURES



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