B6.129-Gria2 tm1Rad/J

Stock No: 003143 | GluR2-

🌿 Congenic Targeted Mutation

CRYO RECOVERY

PLACE ORDER

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

Overview

Also Known As: GluR2-

These Gria2 knock-out mice exhibit an increase in Ca²⁺ permeability and enhanced long-term potentiation.

Donating Investigator

IMR Colony, The Jackson Laboratory
GENETIC OVERVIEW

Genetic Background: 000664 C57BL/6J

Gria2<sup>tm1Rod</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Gria2</td>
<td>glutamate receptor, ionotropic, AMPA2 (alpha 2)</td>
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VIEW GENETICS

RESEARCH APPLICATIONS

Cell Biology Research
Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE
Starting at:

$2,854.50  Domestic price  Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description
Mice homozygous for the Gria2<sup>tm1Rod</sup> targeted mutation (GluR2-deficient) were originally reported to be about one half the size of their normal littermates by two to three weeks of age, leading to some preweaning mortality. Growth retardation and mortality can be diminished by reducing litter size and eliminating some competition for the mother’s milk. By eight weeks of age, homozygotes appear similar in size and weight to their unaffected littersmates. Neurons from Gria2-deficient mice exhibit a 9-fold increase in Ca<sup>2+</sup> permeability and enhanced long-term potentiation (LTP). Antagonists of AMPA and NMDA receptors block all the enhanced LTP seen in homozygous null mice. Changes in pain thresholds, sensitivity to anaesthetics, focal cerebral ischemia, apoptosis of neuronal subpopulations and learning impairments are also observed. It has been the experience of The Jackson Laboratory that no homozygous animals have been recovered from heterozygous sibling matings.

In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. This is the case for the strain above. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

Development
Genotyping Protocols
Standard PCR: Gria2<sup>im1Rod</sup>
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, heterozygous mice may be bred with wildtype siblings or to C57BL/6J inbred mice. In our colonies at The Jackson Laboratory, no homozygous offspring are produced from heterozygous breedings. The expected coat color from breeding is black.

Additional Breeding and Husbandry Support

Citation
When using the Gria2<sup>im1Rod</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #003143 in your Materials and Methods section.

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

Pricing & Availability
Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. **Please check genotypes which will be recovered.** While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. **Animals are typically ready to ship in 11-14 weeks.** If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a **Dedicated Supply** for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

**Payment Terms and Conditions**
Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

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**Terms of Use**
**General Terms and Conditions**

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Email: TechTran@jax.org

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### Related Strains

- **All**
- **By Allele**
- **By Gene**
- **By Collection**

All Related Strains