B6.129(Cg)-Gria2^{tm2Rlh}/J

Stock No: 024419

Congenic, Targeted Mutation

Cryo Recovery

Request Cryorecovery

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

A K882A mutation was introduced to GluA2/Gria2 to prevent PKC-mediated phosphorylation at serine 880 (S880). This eliminates cerebellar long-term depression (LTD), reported to be critical for certain types of motor learning.

Donating Investigator

Richard L Huganir, Johns Hopkins University; HHMI

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Genetic Overview

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Gria2^{tm2Rlh}</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Not Specified)</td>
<td>Gria2</td>
<td>glutamate receptor, ionotropic, AMPA2 (alpha 2)</td>
</tr>
</tbody>
</table>

VIEW GENETICS

Research Applications

Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

Base Price

Starting at:

$2,595.00 Domestic price Cryo Recovery
Cerebellar long-term depression (LTD) is a major form of synaptic plasticity that is thought to be critical for certain types of motor learning. Phosphorylation of GluR2 (Gria2, glutamate receptor, ionotropic, AMPA2 (alpha 2)) on serine-880 has been suggested to contribute to the endocytic removal of postsynaptic AMPA receptors during LTD.

In this mutant strain, a lysine (K) to alanine (A) mutation was introduced to the consensus recognition motif for protein kinase C (PKC) at amino acid 882 to prevent PKC-mediated phosphorylation at serine 880 (S880) of the GRIA2 protein. Western blots performed with a phospho-specific S880 antibody reveal that basal S880 phosphorylation is intact at levels similar to those observed in wildtype littermates, but PKC-mediated S880 phosphorylation is abolished. The mutation does not interfere with binding to the PDZ domain-containing proteins PICK1 and GRIP1. Cerebellar architecture and Purkinje cell morphology appear grossly normal by Nissl and Golgi staining. Cerebellar LTD is absent. Mice are viable and without any observable developmental defects.
Breeding Considerations
Homozygotes and heterozygotes are viable and fertile.

Additional Breeding and Husbandry Support

Citation
When using the B6.129(Sv)Gria2<tm2Rlh>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #024419 in your Materials and Methods section.

Facility Barrier Level Descriptions
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.

<table>
<thead>
<tr>
<th>Service</th>
<th>Genotype</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Gria2&lt;tm2Rlh&gt;</td>
<td>$2,595.00</td>
</tr>
</tbody>
</table>

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.

Cryo recovery 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.

Related Products and Services

<table>
<thead>
<tr>
<th>Product</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen Mouse Embryo</td>
<td>$2,595.00 per straw or vial</td>
</tr>
</tbody>
</table>

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.

The Jackson Laboratory’s Genotype Promise
The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background
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Email: TechTran@jax.org

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