B6.129X1-Camk4^tm1Tch/J

Stock No: 004994 | CaMKIV/Gr KO

- Congenic, Targeted Mutation

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: CaMKIV/Gr KO
These Camk4 knock-out mice exhibit diminished contextual and auditory fear memory.

Donating Investigator
Talal Chatila, Boston Children's Hospital
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Camk4&lt;sup&gt;1m1Tch&lt;/sup&gt;</td>
<td></td>
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<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>Camk4</td>
<td>calcium/calmodulin-dependent protein kinase IV</td>
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**RESEARCH APPLICATIONS**

- Neurobiology Research
- Immunology, Inflammation and Autoimmunity Research
- Internal/Organ Research

**BASE PRICE**

Starting at:

- $2,595.00 Domestic price Cryo Recovery

**Details**

**Detailed Description**

Mice that are homozygous for the targeted mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. No gene product (mRNA or protein) is detected by RT-PCR or Western blot analysis. Synaptic plasticity, as assayed by long-term potentiation (LTP) and long-term depression (LTD), in mutant mice is deficient. Homozygotes exhibit diminished contextual and auditory fear memory. Cyclic AMP-responsive element binding protein (CREB) activation by fear conditioning is absent in the amygdala and decreased in the hippocampus. Thymocyte maturation is impaired. Both CD4+ and CD8+, single positive, thymocyte levels are reduced. This mutant mouse strain may be useful in studies examining learning and memory or related to thymocyte development.

**Development**

**Control Suggestions**
Genotyping Protocols
Standard PCR: Camk4<sup>imTch</sup>
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as homozygotes.
Additional Breeding and Husbandry Support

Citation
When using the CaMKIV Cre KO mouse strain in a publication, please cite the originating article(s) and include JAX stock #004994 in your Materials and Methods section.

Animal Health Reports
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.
Cryorecovery - Domestic Pricing

<table>
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<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or wildtype for Camk4&lt;tm1Tch&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.

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.

### Related Products and Services

| Frozen Mouse Embryo | $2,595.00 per straw or vial |

**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 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.

**Terms Of Use**

**Terms of Use**

**General Terms and Conditions**

**Licensing Information**

Phone: 207-288-6470  
Email: TechTran@jax.org

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**Related Strains**

- All
- By Allele
- By Gene
- By Collection

All Related Strains
EILLSWORTH FACILITY OFFICIALLY OPEN AND OPERATIONAL
Shipments have begun at our new facility, allowing increased access to JAX mouse models.