B6;129S1-Trpc2^{nl1[N]}/J

Stock No: 021208

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

These mice carry a knockout allele of the Trpc2 (transient receptor potential cation channel, subfamily C, member 2) gene. Homozygotes are deficient in vomeronasal organ (VNO) signaling and the detection of pheromonal cues, leading to social behavior modifications.

Donating Investigator

Catherine Dulac, Harvard University, HHMI
GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
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<tbody>
<tr>
<td>Trpc2&lt;sup&gt;tm1Dlc&lt;/sup&gt;</td>
<td></td>
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<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>Trpc2</td>
<td>transient receptor potential cation channel, subfamily C, member 2</td>
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RESEARCH APPLICATIONS

Cell Biology Research  
Neurobiology Research

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

In mouse, the Trpc2 (transient receptor potential cation channel, subfamily C, member 2) gene is expressed primarily in the neurons of the vomeronasal organ (VNO). It is involved with processes of pheromone detection which impact social behaviors. The protein is not expressed by humans, which carry a pseudogene.

These targeted mutant mice carry a knockout of Trpc2. Western blot from the VNO shows elimination of expression. Homozygotes are deficient in VNO signaling and the detection of vomeronasal cues. Male mice deficient in TRPC2 expression fail to display male-male aggression, and they initiate sexual and courtship behaviors toward both males and females. Female mice deficient in TRPC2 show a reduction in maternal aggression and lactating behavior. They do display characteristics of male sexual and courtship behaviors such as mounting, pelvic thrust, solicitation, anogenital olfactory investigation, and emission of complex ultrasonic vocalizations towards male and female conspecific mice. In the adult, the number of V1R neurons in the homozygous mice is reduced by approximately 50% and the number of V2R-expressing neurons is reduced by approximately 75% in comparison with heterozygous mice.
Genotyping Protocols
SEPARATED MELT: Trpc2\textsuperscript{tm1Dlc}\textendash Alternate 1
Genotyping resources and troubleshooting

Breeding Considerations
Heterozygotes and homozygotes are viable and fertile.
Additional Breeding and Husbandry Support

Citation

Animal Health Reports
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.

### Cryorecovery - Domestic Pricing

<table>
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<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Trpc2&lt;tm1Dlc&gt;</td>
<td>$2,854.50</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.

### 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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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.

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**Terms Of Use**

Terms of Use

*General Terms and Conditions*

**Additional Use Restrictions Apply**

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**Licensing Information**

Phone: 207-288-6470

Email: TechTran@jax.org

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All Related Strains