Overview

The ubiquitous CrT knockout allele (CrT) has a deletion of the exons encoding the 2nd-4th transmembrane domain of the creatine transporter gene on the X chromosome. These mice may be useful for studying creatine transport and human X-linked creatine deficiency syndrome, mental retardation, autism, and speech, language, cognitive, and memory disorders.

Donating Investigator
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
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<tbody>
<tr>
<td>Slc6a8^lm1.2Clar</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Slc6a8</td>
<td>solute carrier family 6 (neurotransmitter transporter, creatine), member 8</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

Neurobiology Research  
Cell Biology Research  
Developmental Biology Research

**BASE PRICE**
Starting at:  
$2,854.50 Domestic price Cryo Recovery

**Details**

**Detailed Description**

The ubiquitous CrT knockout allele (CrT^−/−) has a deletion of the exons encoding the 2nd-4th transmembrane domain of the creatine transporter gene on the X chromosome. Heterozygous females (CrT^+/−) are viable and fertile with no observed abnormalities. Hemizygous males (CrT^−/X) do not breed (perhaps due to behavioral/cognitive phenotype; fertility is unknown). No homozygous females have been generated to date (January 2013). Males hemizygous for the pan deletion (CrT^−/X) lack creatine in brain and muscle, have significant creatine reductions in other tissues (including heart and testis), and exhibit learning and memory deficits resembling human X-linked creatine deficiency syndrome.

Of note, the donating investigator also sent the CrT^flax conditional mice (floxed exons 2-4) to The Jackson Laboratory Repository as Stock No. 020642.
Genotyping Protocols
High Resolution Melting: Tg(ACFLPe)
Standard PCR: Slc6a8<sup>tm1.2Dar</sup>-Alternate 1
Probe: Generic FLP
MELT: Generic Neo
Standard PCR: Tg(ACFLPe)
Probe: Generic Neo
Probe: Generic Cre Probe
Genotyping resources and troubleshooting

Breeding Considerations
The targeted mutation is on the X chromosome. Heterozygous females have no reported breeding problems. Hemizygous males do not breed (perhaps due to behavioral/cognitive phenotype; fertility is unknown). When maintaining a live colony, heterozygous females are bred with wildtype males from the colony or with C57BL/6J inbred males (Stock No. 000664).
Additional Breeding and Husbandry Support

Citation
When publishing results with Slc6a8<sup>tm1.2Dar</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #021072 in your Materials and Methods section.

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

<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>X linked Heterozygous females and wildtype males for Slc6a8&lt;tm1.2Clar&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.

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
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Related Strains

All