STOCK Tg(Alb-F8*R593C)T4Mcal/J

Stock No: 017706

Transgenic

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 contain a huFVIII-R593C transgene, designed with the murine albumin (Alb) promoter driving expression of an altered human coagulation factor VIII (F8) cDNA harboring a mutation that is frequently observed in patients with mild hemophilia A. These mice also carry a knock-out of the F8 gene and are deficient for endogenous F8 protein.

Donating Investigator

Michele Calos, Stanford University School of Medicine

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F8tm1Kaz</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>F8</td>
<td>coagulation factor VIII</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transgenic (Inserted expressed sequence, Humanized sequence)</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Hematological Research

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

Details
The *huFVIII-R593C* transgene was designed with the murine albumin (*Alb*) promoter driving expression of a mutated human coagulation factor VIII (*F8*) cDNA. Mice carrying this transgene were bred to mice deficient in endogenous F8. F8 is a coagulation factor, and mutations of this gene have been linked to hemophilia A. As such, the donating investigator reports that these mice will die due to blood loss from a tail clip (see additional note below). These double mutant mice are tolerant of human F8 (*hF8*) injection, and have no F8 activity. They produce very little inhibitory antibodies and lack F8 responsive T cells or B cells after treatment with human F8. When treated with a hF8 expression plasmid driven by a liver-specific human α1 anti-trypsin promoter and an attB phiC31 integrase site, in conjunction with phiC31 integrase treatment, this hF8 integrates into the host genome at specific "pseudo-attP sites" and results in long-term gene therapy. This strain may be useful for studying hF8 gene therapy treatments for Hemophilia A patients.

Additional note on tail clipping: The donating investigator reports that these mice will die due to blood loss from a tail clip. The donating investigator suggests no tail clipping be performed on mice younger than 4 weeks of age, and tail clipping with cauterization may be used for mice older than 4 weeks of age.
Related Products and Services

Frozen Mouse Embryo

STOCK F8<tm1Kaz> Tg(Alb-F8*R593C)T4Mcal/J Frozen Embryo

$2595.00

Genotyping Protocols

Standard PCR: F8
Separated PCR: Tg(Alb-F8*R593C)T4Mcal/J

Genotyping resources and troubleshooting

Breeding Considerations

The F8<tm1Kaz> mutation is on the X chromosome. When maintaining a live colony, females homozygous for the targeted mutation and hemizygous for the transgene may be bred to males hemizygous for the targeted mutation and wildtype (noncarrier) for the transgene. Alternatively, females homozygous for the targeted mutation and wildtype (noncarrier) for the transgene may be bred to males hemizygous for the targeted mutation and hemizygous for the transgene.

The donating investigator reports that these mice will die due to blood loss from a tail clip. The donating investigator suggests no tail clipping be performed on mice younger than 4 weeks of age, and tail clipping with cauterization may be used for mice older than 4 weeks of age.

Additional Breeding and Husbandry Support

Mating System

See "Breeding Considerations"

Citation

When using the STOCK F8<tm1Kaz> Tg(Alb-F8*R593C)T4Mcal/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #017706 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.

<table>
<thead>
<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Hemizygous for Tg(Alb-F8*R593C)T4Mcal, Heterozygous female and Wildtype males for F8&lt;tm1Kaz&gt;</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

Related Products and Services

Frozen Mouse Embryo

STOCK F8<tm1Kaz> Tg(Alb-F8*R593C)T4Mcal/J Frozen Embryo

$2595.00

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Email: TechTran@jax.org

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Related Strains

All

By Allele

By Gene

By Collection

All Related Strains