B6.129-Flt3 $^{tm10gg/J}$

Stock No: 011112 | FLT3-ITD

- Congenic, Targeted Mutation

PLACE ORDER

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

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**Overview**

**Also Known As: FLT3-ITD**

Flt3-ITD homozygous knock-in mutant mice develop myeloproliferative disease exhibiting increased myeloid and monocytic cell populations and reduced B and T cell lymphoid cell numbers. This mutant mouse strain may be useful in studies of B cell development, hematopoiesis and myeloproliferative diseases such as chronic myelomonocytic leukemia and Chronic Familial Myelocytic Leukemia-Like Syndrome.

**Donating Investigator**

D. Gary Gilliland, Brigham and Women's Hospital
GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIt3^tm1Dgg</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 (Humanized sequence)</td>
<td>Flt3</td>
<td>FMS-like tyrosine kinase 3</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Research Tools
- Immunology, Inflammation and Autoimmunity Research
- Cancer Research

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

Details

Detailed Description

These mice carry the human W51 mutation, iTD, internal tandem duplication of amino acids 596 to 602, in the endogenous mouse Flt3 locus, which confers constitutive FLT3 signaling. Mice that are homozygous for the targeted mutation are viable and fertile. The Donating Investigator reports that BALB/c mice carrying this allele are not as viable as mutants on the C57BL/6 background. Although FLT protein levels are comparable to wildtype, increased phosho-Flt3 (p-FLT3) and phosho-Stat5 (pSTAT5) levels are detected by flow cytometric analysis of homozygous bone marrow and splenic cells. Homozygotes exhibit leukocytosis, monocytosis and progressive splenomegaly. Mature myeloid and monocytic populations in homozygotes are increased, with reduced B and T cell populations. B cell development is arrested at the pre-B stage. Heterozygotes have decreased liver size, hemoglobin levels, platelet counts and exhibit a milder maturing myeloid hyperplasia phenotype when compared to homozygotes.

Development
Genotyping Protocols
Separated PCR: Flt3\textsuperscript{tm10gg}
Standard PCR: Flt3\textsuperscript{tm10gg}
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as heterozygotes. According to the donating investigator, homozygotes are less viable on a C57BL/6 genetic background.
Additional Breeding and Husbandry Support

Citation
When using the Flt3\textsuperscript{tm10gg} mouse strain in a publication, please cite the originating article(s) and include JAX stock #011112 in your Materials and Methods section.

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.
Cryo Recovery

Domestic International
Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or wildtype for Fli3&lt;tm1Dgg&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.

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.

<table>
<thead>
<tr>
<th>Related Products and Services</th>
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</tr>
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<tbody>
<tr>
<td>Frozen Mouse Embryo</td>
<td>B6.129-Frt3&lt;tm1Dgg&gt;/J Frozen Embryo</td>
<td>$2595.00</td>
</tr>
</tbody>
</table>

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Email: TechTran@jax.org
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- By Allele
- By Gene
- By Collection