Overview

These Gfi1::GFP knock-in mice express Green Fluorescent Protein in almost all thymocytes and may be useful in lineage studies of Gfi1 expressing cells during hematopoiesis, lymphopoiesis and B and T cell development.

Donating Investigator

Tarik Moroy, IRCM
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gfi1&lt;sup&gt;tm2Tmo&lt;/sup&gt;</strong></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>
</thead>
<tbody>
<tr>
<td>Targeted (Reporter, Null/Knockout)</td>
<td>Gfi1</td>
<td>growth factor independent 1 transcription repressor</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**
- Sensorineural Research
- Neurobiology Research
- Developmental Biology Research
- Internal/Organ Research
- Research Tools

**BASE PRICE**

Starting at:

$2,854.50 Domestic price Cryo Recovery

**Details**

**Detailed Description**

These mutant mice express EGFP (Enhanced Green Fluorescent Protein) from the endogenous Gfi1 locus. No endogenous gene product (protein) is detected in thymocytes from homozygotes, as detected by FACS analysis. Homozygotes exhibit neutropenia, decreased thymocyte number, and defective B cell and T cell differentiation. The Donating Investigator reports that homozygous mice must be maintained under SPF conditions and have a lifespan of 1 year. GFP fluorescence expression mimics the expression pattern of the endogenous gene. Mice that are heterozygous for the targeted mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. Almost all thymocytes from homozygotes fluoresce. Fluorescence of thymocytes from homozygotes is more intense than fluorescence observed in heterozygotes. At embryonic day 17.5, homozygous embryos exhibit disorganized inner ear sensory epithelia, with abnormal outer hair cells morphology. Neonate homozygotes have degeneration and loss of hair cells. During backcrossing, the Y chromosome may not have been fixed to the C57BL/6 genetic background.

**Development**

**Expression Data**
Genotyping Protocols
Standard PCR: Gfi1<sup>Imo<sup>2Tim</sup></sup>
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, these mice can be bred as heterozygotes. The Donating Investigator reports that homozygous mice must be maintained under SPF conditions and have a lifespan of approximately 1 year.
Additional Breeding and Husbandry Support

Citation
When using the B6.129-Gfi1<sup>Imo<sup>2Tim</sup></sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #016162 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.
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.

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Related Strains

All

By Allele

By Gene

By Collection