B6;129S\textsuperscript{Tet2\textsuperscript{f}}

Stock No: 017573 | Tet2\textsuperscript{f}

Available

Live mice available in varying quantities. Ask Customer Service for details.

Overview

Also Known As: Tet2\textsuperscript{f}

These floxed mutant mice possess \textit{loxP} sites flanking exon 3 of the \textit{Tet2} gene. This strain may be used for the conditional knockout of \textit{Tet2} for studying hematopoietic stem cell self-renewal and myeloid transformation.

Donating Investigator

Iannis Aifantis, NYU School of Medicine
GENETIC OVERVIEW

Genetic Background
Generation
?+N2F17
(2020-01-17 00:00:00)

**Tet2**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Conditional ready (e.g. floxed), No functional change)</td>
<td>Tet2</td>
<td>tet methylcytosine dioxygenase 2</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Research Tools

BASE PRICE
Starting at:
$255.00 Domestic price for female 4-week

Detailed Description

Like *TET1* and *TET3*, *TET2* modifies DNA by hydroxylating 5 methylcytosine. A significant percentage of patients with myeloid malignancies exhibit mutations in *TET2*, of these, 41.5% of mutations occur in the first coding exon (mouse exon 3). These *Tet2<sup>tm1.Iaai</sup>* mice possess *loxP* sites flanking exon 3. Mice that are homozygous for the targeted mutation are viable, fertile and normal in size. When used in conjunction with a Cre recombinase-expressing strain, this strain is useful in generating tissue-specific mutants of the floxed allele. This mutant mouse strain may be useful in generating conditional mutations to study hematopoietic stem cell self-renewal and myeloid transformation.

For example, when crossed to a strain expressing interferon-inducible Cre recombinase (see Stock No. 003556), mice exhibit increased hematopoietic stem cell self-renewal.
Genotyping Protocols
Standard PCR: Tet2

Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations
While maintaining a live colony, these mice are bred as homozygotes.

Mating System
Homozygote x Homozygote

Citation
When using the Tet2 mouse strain in a publication, please cite the originating article(s) and include JAX stock #017573 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
AX18 (Maximum)

Pricing & Availability

Available

Live mice available in varying quantities. Ask Customer Service for details.
### Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
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<td>4 weeks</td>
<td>Female</td>
<td>Homozygous for Tet2&lt;sup&gt;tm1.1Iaai&lt;/sup&gt;</td>
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<td>Male</td>
<td>Homozygous for Tet2&lt;sup&gt;tm1.1Iaai&lt;/sup&gt;</td>
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<tr>
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<tr>
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<td>Male</td>
<td>Homozygous for Tet2&lt;sup&gt;tm1.1Iaai&lt;/sup&gt;</td>
<td>$255.00</td>
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<tr>
<td>6 weeks</td>
<td>Female</td>
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<td>$255.00</td>
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<tr>
<td></td>
<td>Male</td>
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<td>$255.00</td>
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<tr>
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<tr>
<td></td>
<td>Male</td>
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<tr>
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<tr>
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<td></td>
<td>Male</td>
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### Related Products and Services

| Frozen Mouse Embryo | B6;129S-Tet2<sup>tm1.1Iaai</sup>/J Frozen Embryo | $2595.00 |

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Email: TechTran@jax.org

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