FVB;129P2-Met<sup>tm1St</sup>/J

Stock No: 016974 | c-met<sup>fl</sup>

Targeted Mutation

REQUEST CRYORECOVERY

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

Also Known As: c-met<sup>fl</sup>

These c-met<sup>fl</sup> floxed mutant mice possess loxP sites flanking exon 16 of the met proto-oncogene (Met) sequence. This strain may be useful for studying neuronal growth and development in neuropsychiatric diseases such as schizophrenia and autism.

Donating Investigator

Snorri S. Thorgeirsson, NATIONAL INSTITUTES OF HEALTH

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GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met&lt;sup&gt;tm1St&lt;/sup&gt;</td>
<td></td>
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<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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</thead>
<tbody>
<tr>
<td>Targeted (Conditional ready (e.g. floxed), No functional change)</td>
<td>Met</td>
<td>met proto-oncogene</td>
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VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research
Neurobiology Research
Research Tools
Cancer Research

VIEW ALL RESEARCH APPLICATIONS
Details

Detailed Description

These c-met<sup>tm1Sfl</sup> floxed mutant mice possess loxP sites flanking exon 16 of the met proto-oncogene (Met) sequence. Mice that are homozygous for this allele are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. MET is a tyrosine kinase receptor, expressed in a wide variety of adult and embryonic tissues, which regulates mitogenesis, motogenesis, brain development, and dendrite and spine morphogenesis. MET, along with its ligand HGF (hepatocyte growth factor), has been implicated in diseases such as autism spectrum disorders (ASD), schizophrenia, and tumorigenesis. When these mutant mice are bred to mice that express Cre recombinase, resulting offspring will have exon 16, encoding a critical ATP-binding site, deleted in cre-expressing tissues. This deletion inactivates the intracellular tyrosine kinase domain of MET which is essential for MET function.

For example, when crossed to a strain expressing Cre recombinase in the hepatocytes (see Stock No. 003574 for example), the resulting mutant mouse strain exhibits disruption of hepatocyte survival and regeneration.

When crossed to a strain expressing Cre recombinase in cortical neurons, the resulting mutant mouse strain exhibits disrupted synaptic development and neuronal hyperconnectivity as seen in ASD.

This strain may be useful for studying neuronal growth and development in neuropsychiatric diseases such as schizophrenia and autism.

Development

Control Suggestions

Selected References

Genetics

Met<sup>tm1Sfl</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References
Genotyping Protocols
Probe: Generic Cre Probe
MELT: Generic Cre Melt Curve Analysis
Standard PCR: Met^{tm1Sst}
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, homozygous mice may be bred together.
Additional Breeding and Husbandry Support

Citation
When using the c-met^{tm1Sst} mouse strain in a publication, please cite the originating article(s) and include JAX stock #016974 in your Materials and Methods section.

Animal Health Reports
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.

<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>Heterozygous for Met^{tm1Sst}</td>
<td>$2,595.00</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.

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#### General Terms and Conditions

### Licensing Information

Phone: 207-288-6470
Email: TechTran@jax.org

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Related Strains

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All Related Strains