Overview

Also Known As: sparse fur

These mice carry the spontaneous Otc\textsuperscript{spl} (sparse fur) mutation and are characterized by late and patchy development of fur with a deficiency in liver ornithine transcarbamylase (OTC).
<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>a</td>
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<tr>
<td><strong>Allele Type</strong></td>
<td><strong>Gene Symbol</strong></td>
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<tr>
<td>Spontaneous</td>
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<tr>
<td>Otc$^{spf}$</td>
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<tr>
<td>Radiation induced (Hypomorph)</td>
<td>Otc</td>
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**RESEARCH APPLICATIONS**
Metabolism Research
Dermatology Research
Mouse/Human Gene Homologs

**BASE PRICE**
Starting at:
$2,854.50 Domestic price Cryo Recovery

**Details**

**Important Note**
Otc$^{spf}$ is incompletely recessive. Some heterozygous females display the mutant phenotype.

**Detailed Description**
The sparse fur mutation is dominant with incomplete and variable penetrance. Heterozygotes are fully viable and fertile. Fur development is late and patchy, but practically normal by weaning age. The mutation is an X-linked deficiency of liver ornithine transcarbamylase (OTC), similar to congenital hyperammonemia type II seen in children. Congenital OTC deficiency in humans is also associated with seizures and mental retardation. Sparse fur hemizygous male mice are over 90% deficient in ornithine transcarbamylase and exhibit increased synthesis of orotic acid. A significant loss of choline acetyltransferase positive neurons has been observed throughout the cerebral cortex, septal area and diagonal band of sparse fur mice.
Genotyping Protocols
End Point Analysis: Otc<sup>spl</sup>
SEPARATED MELT: A<sup>W-J</sup> A<sup>W</sup> A<sup>W</sup>
Genotyping resources and troubleshooting

Breeding Considerations
Since most heterozygous females are normal in appearance and thus indistinguishable from wild type, a two generation breeding scheme is used: B6EIC3SnFa-a/A females are bred to hemizygous males producing obligate heterozygous females which are then bred to B6EIC3SnFa-a/A males to produce phenotypically apparent hemizygous males, etc.

Additional Breeding and Husbandry Support
Appearance
black, small early size, sparse fur
Related Genotype: a/a Otc<spf>/Y
agouti, small early size, sparse fur
Related Genotype: A/? Otc<spf>/Y
black, normal size and coat
Related Genotype: a/a +/+Y or a/a +/-
agouti, normal size and coat
Related Genotype: A/? +/+Y or A/? +/-

Citation
When using the sparsely fur mouse strain in a publication, please cite the originating article(s) and include JAX stock #002343 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.

<table>
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<tr>
<th>Cryorecovery - Domestic Pricing</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>X linked - Heterozygous Females and Wild-type Males for Otc&lt;spf&gt;, 1 pair minimum</td>
<td>$2,654.50</td>
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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.

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.

The Jackson Laboratory's Genotype Promise
The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made
available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain’s phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project.

Terms Of Use

Terms of Use

General Terms and Conditions

QUESTIONS ABOUT TERMS OF USE

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

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Related Strains

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<td>All</td>
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<tr>
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<td>By Gene</td>
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<td>By Collection</td>
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All Related Strains