Overview

Also Known As: SP-A-

These Sftp1 knock-out mice are more susceptible to group B streptococcal infections due to impaired bacteria clearance.

Donating Investigator

Dr. Jeffrey Whitsett, Children's Hospital Medical Center
GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
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</table>

**Sfpt1**<sup>1m1Kor</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Sfpt1</td>
<td>surfactant associated protein A1</td>
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VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research
Internal/Organ Research
Research Tools

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

$2,595.00 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Mice that are homozygous for the targeted mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. No gene product (mRNA or protein) is detected by Northern or Western blot analysis of lung tissue from homozygous mice. Homozygotes are more susceptible (pneumonia and sepsis) to group B streptococcal, **P. aeruginosa**, and **H. influenzae** infections due to impaired bacteria clearance. Alveolar macrophages have impaired superoxide radical production. Administration of surfactant protein A increases phagocytosis of bacteria by macrophages. When experimentally infected with respiratory syncytial virus or influenza A, homozygotes have increased viral titer, pulmonary inflammatory cell infiltration and cytokine levels. This mutant mouse strain represents a model that may be useful in studies of host defense against respiratory pathogens and innate immune function.

In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. This is the case for the strain above. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

Development
Genotyping Protocols
MELT: Sftp1<sup>tm1Kor</sup>
Genotyping resources and troubleshooting

Breeding Considerations
This strain originated on a mixed 129P2, NIH Swiss black background, and may be maintained as a homozygote on the same. SPF (specific pathogen free) conditions required.
Additional Breeding and Husbandry Support

Citation
When using this B6.A-srv mouse strain in a publication, please cite the originating article(s) and include JAX stock #804964 in your Materials and Methods section.
Facility Barrier Level Descriptions
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>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Homozygous for Sftpa1&lt;tm1Kor&gt;</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.

**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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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.

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Terms of Use
General Terms and Conditions

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

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