

**B6EiC3Sn *a/A-Otc<sup>spf</sup>* /J**

Stock No: **002343** | sparse fur

 Spontaneous Mutation

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

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with a deficiency in liver ornithine transcarbamyase (OTC).

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## GENETIC OVERVIEW

Genetic Background

Generation

*a*

**Alele Type**

Spontaneous

**Gene Symbol**

*a*

**Gene Name**

nonagouti

*Otc<sup>spf</sup>*

**Alele Type**

Radiation induced  
(Hypomorph)

**Gene Symbol**

*Otc*

**Gene Name**

ornithine transcarbamyase

*A*

**Alele Type**

Spontaneous

**Gene Symbol**

*a*

**Gene Name**

nonagouti

VIEW GENETICS

RESEARCH APPLICATIONS

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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### 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.

#### Control Suggestions

### Genetics

+ a

+  $Otc^{spf}$

+ A

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## – Disease/Phenotype

[+ Disease Terms](#)

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[+ Research Areas By Phenotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ References](#)

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## – Technical Support

C O N T A C T   T E C H N I C A L   S U P P O R T

### Genotyping Protocols

End Point Analysis:[Otc](#)

Separated PCR:[A A A](#)

Separated PCR:[A A A Alternate2](#)

[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<sup>spf</sup>/Y*

agouti, small early size, sparse fur

Related Genotype: *A/? Otc<sup>spf</sup>/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 sparse fur mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #002343 in your Materials and Methods section.

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## Animal Health Reports

## Facility Barrier Level Descriptions

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)

## 🔻 Pricing & Availability



Cryo  
Recovery

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

## Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

### CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	X linked - Heterozygous Females and Wild-type Males for Otc<spf>, 1 pair minimum	\$2,854.50

## 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. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

## 🔻 Terms Of Use

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## LICENSING INFORMATION

Phone: 207-288-6470  
Email: [TechTran@jax.org](mailto:TechTran@jax.org)

### Related Strains

All

By Allele

By Gene

By Collection



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