

**C.129S(B6)-Stat5a<sup>tm1Mam</sup>/J**

Stock No: **007806**

 Congenic, Targeted Mutation

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

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no milk secretion even after prolonged suckling. This mutant mouse strain may be useful in studies of mammary gland development, cancer research and immunological intracellular signal transduction.

### Donating Investigator

Michael Tomasson, Washington University School of Medicine

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## GENETIC OVERVIEW

Genetic Background

Generation

*Stat5a<sup>tm1Mam</sup>*

**Alele Type**

Targeted (Null/Knockout)

**Gene Symbol**

*Stat5a*

**Gene Name**

signal transducer and activator of transcription 5A

VIEW GENETICS

## RESEARCH APPLICATIONS

Cancer Research

Immunology, Inflammation and Autoimmunity Research

Research Tools

Hematological Research

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

V I E W   P R I C E   L I S T

### – Details

#### – Detailed Description

Mice homozygous for the targeted mutation are viable, develop normally, and are fertile, but females do not lactate. Mammary ductal development through pregnancy is normal, but lobuloalveolar development is severely reduced, and milk is not secreted even after prolonged suckling. Levels of the closely-related STAT5B protein are also markedly reduced in STAT5A-deficient mice, but STAT5B protein levels increase and phosphorylation is evident after 3 days of suckling. Expression of several milk protein genes is unaffected in homozygous mutants, but whey acidic protein expression is severely reduced. Homozygous males exhibit abnormal prostate morphology and an increase in probasin secretion. Immunological defects exhibited by homozygotes include a reduced number of peritoneal mast cells, decreased IL-3-dependent development of bone marrow-derived mast cells, defective bone marrow-derived macrophage GM-CSF (Granulocyte-Macrophage Colony-Stimulating Factor)-induced proliferation, decreased number of NK cells, and decreased expansion of T cells. This mutant mouse strain may be useful in studies of mammary gland development, lactogenesis, hematopoiesis, and immunological intracellular signal transduction.

*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

#### + Control Suggestions

#### + Selected References

### – Genetics

#### + *Stat5a*<sup>tm1Mam</sup>

## – 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

Standard PCR:[Stat5a](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, these mice are bred heterozygous females x homozygous males. Although homozygous females are viable and fertile, they do not lactate. Litters from homozygous females must be fostered.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the C.129S(B6)-*Stat5a*<sup>tm1Mam</sup>/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #007806 in your Materials and Methods section.

### 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.

## CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Heterozygous or Wild-type for Stat5a<tm1Mam>	\$2,854.50

## RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	C.129S(B6)-Stat5a<tm1Mam>/J Frozen Embryo	\$2595.00
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## 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.

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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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