

B6.129S6(Cg)-Sirt3^{tm1.1Fwa} /J

Stock No: 027975 | SIRT3 knock-out

 Congenic, Targeted Mutation

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

PLACE ORDER

[Email](#) [Download PDF](#) [Help](#)

oxidation in diabetes, cardiovascular disease, steatosis, fasting, cold exposure and life span.

Donating Investigator

Dr. Frederick W. Alt, Children's Hospital

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

Sirt3^{tm1.1Fwa}

Alele Type

Gene Symbol

Gene Name

Targeted (Null/Knockout)

Sirt3

sirtuin 3

VIEW GENETICS

RESEARCH APPLICATIONS

Metabolism Research

Research Tools

Diabetes and Obesity 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

The targeted mutation deletes exons 2-3 of the mouse sirtuin 3 gene (*Sirt3*), abolishing gene function. Homozygous mice are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. *Sirt3*^{-/-} mice exhibit hyperacetylation of mitochondrial enzymes, including glutamate dehydrogenase (GDH) and long-chain acyl co-enzyme A dehydrogenase (LCAD), leading to a decrease in the modulation of mitochondrial metabolism and fatty acid oxidation. They show reduced ATP production, cold intolerance, and hypoglycemia. These mice may be useful in studying the role of fatty acid oxidation in diabetes, cardiovascular disease, steatosis, fasting, cold exposure and life span.

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

Sirt3^{tm1.1Fwa}

Disease/Phenotype

Disease Terms

[+ Research Areas By Phenotype](#)

[+ Mammalian Phenotype Terms by Genotype](#)

[+ References](#)

[- 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:[Sirt3](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Homozygote

Citation

When using the SIRT3 knock-out mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #027975 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.

Domestic | **International**

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

| SERVICE/PRODUCT | DESCRIPTION | PRICE |
|-------------------------------|--|------------|
| Cryo Recovery | Heterozygous or wildtype for Sirt3<tm1.1Fwa> | \$2,854.50 |

| RELATED PRODUCTS AND SERVICES | | |
|-------------------------------------|--|-----------|
| Frozen Mouse Embryo | B6.129S6(Cg)-Sirt3<tm1.1Fwa>/J Frozen Embryo | \$2595.00 |

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

TERMS OF USE

[General Terms and Conditions](#)

Q U E S T I O N S A B O U T T E R M S O F U S E

ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a license prior to shipping.](#)

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection



DO YOU NEED BALB/c MICE?

Rely on JAX to provide the models you need, when you need them.

LEARN MORE



CONTACT



DONATE



SUBSCRIBE

JAX HOME CAREERS LEGAL INFORMATION

RESEARCH CENTERS MOUSE GENOME INFORMATICS

MOUSE PHENOME DATABASE

Leading the search for

TOMORROW'S CURES



©2021 THE JACKSON LABORATORY

Choose other country or region 

 [E](#) [E](#) [E](#) [D](#) [B](#)

Did you find what you were looking for?

Yes No