

B6;129S1-Smc1a^{tm1Mbk}/J

Stock No: **013122**

 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](#)

Donating Investigator

Michael Kastan, St.Jude Children's Research Hospital

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

Smc1a^{tm1Mbk}

Allele Type

Gene Symbol

Gene Name

Targeted

Smc1a

structural maintenance of chromosomes 1A

VIEW GENETICS

RESEARCH APPLICATIONS

Cell Biology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

V I E W P R I C E L I S T

Details

Detailed Description

This strain contains mutations in exon 19 of the endogenous structural maintenance of chromosomes 1A, *Smc1a*, gene. Serine to Alanine mutations in amino acid residues 957 and 966 of exon 19 abolish both of the damage-induced phosphorylation sites of Smc1a. Homozygous *Smc1^{S957A/S966A}* mice are viable, fertile, and normal in size. Cells from these mice show normal aggregation of Nibrin (NBS1) and breast cancer 1 (BRCA1) proteins, and normal activation and migration of Ataxia Telangiectasia, mutated (ATM) at the site of DNA breaks, all of which are required for Smc1 phosphorylation. Smc1 is not phosphorylated in fibroblasts from these mice, they exhibit a defective S-phase checkpoint, decreased survival, and increased chromosomal aberrations and radiosensitivity after DNA damage. These mice may be useful for studying cell survival and chromosomal stability after DNA damage.

Development

Control Suggestions

Selected References

Genetics

Smc1a^{tm1Mbk}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

- 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:[Smc1a STD PCR](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous females may be bred to heterozygous males (X-linked mutation).

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6;129S1-*Smc1a*^{tm1Mb^k}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #013122 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	X linked - Heterozygous females and Wildtype Males for <i>Smc1a</i> <tm1Mb ^k >	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

B6;129S1-Smc1a<tm1Mbk>/J

\$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