

B6.129S6-Dnmt3l^{tm1Bes}/J

Stock No: **004267** | Dnmt3l^c

 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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spermatocytes prior to pachytene.

Donating Investigator

Timothy H. Bestor, Columbia University

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GENETIC OVERVIEW

Genetic Background

Generation

Dnmt3l^{tm1Bes}

Alele Type

Targeted (Reporter, Null/Knockout)

Gene Symbol

Dnmt3l

Gene Name

DNA (cytosine-5-)-methyltransferase 3-like

VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research

Reproductive Biology Research

Research Tools

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 that are homozygous for this targeted allele are viable, normal in size, do not display any gross physical or behavioral abnormalities, but are sterile. Adult homozygous males display severe hypogonadism, Sertoli-cell-only phenotype and apoptotic death of spermatocytes prior to pachytene with loss of spermatogonia progressing to nonsyndromic azoospermia in later adulthood. Extreme abnormalities of meiotic pairing occur. There is a failure to methylate transposons in prospermatogonia with expression of very high levels of both LTR and non-LTR transposons in spermatogonia and spermatocytes. Homozygous females have normal oogenesis. Heterozygous progeny of homozygous females do not develop past 9.5 day post coitum, with pericardial edema with exencephaly and other neural tube defects. Maternally imprinted gene sequence that is usually heavily methylated in control oocytes is undermethylated in mutant mice oocytes. Paternally imprinted gene sequence is not effected and global genome methylation is not reduced in heterozygous progeny of homozygous females. This mutant mouse strain represents a model that may be useful in studies of genomic imprinting and cloning.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Dnmt3l^{tm1Bes}

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

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Homozygotes are viable and fertile, but sterile (see strain phenotype description). When maintaining a live colony, heterozygous mice may be bred together or to wildtype mice from the colony.

[Additional Breeding and Husbandry Support](#)

Citation

When using the $Dmnt3l^G$ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004267 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.

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CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or Wild-type for Dnmt3l<tm1Bes>	\$2,854.50

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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](#)

QUESTIONS ABOUT TERMS OF USE

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



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