



# B 6 . 1 *Mlh3*<sup>tm<sup>2</sup>Lpkn</sup> / J

Stock No: 018845

Congenic, Targeted Mutation



CRYO RECOVERY

P L A C E   O R D E R

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

## Overview

In this strain exon 2 of the *Mlh3*, mutL homolog 3 (E coli), gene is disrupted. Homozygotes are infertile, exhibiting meiotic arrest during gametogenesis, and develop a higher frequency of gastrointestinal tumors when compared to controls. This mutant mouse strain may be useful in studies of microsatellite instability, DNA-damage response, and tumorigenesis.

### Donating Investigator

Steven Lipkin, Weill Cornell Medical College

READ MORE +

## GENETIC OVERVIEW

Genetic Background

Generation

*Mlh3<sup>tm1Lpkn</sup>*

Allele Type

Gene Symbol

Gene Name

Targeted (Reporter,  
Null/Knockout)

*Mlh3*

mutL homolog 3

VIEW GENETICS

## RESEARCH APPLICATIONS

Reproductive Biology Research

Cancer Research

Cell Biology Research

VIEW ALL RESEARCH APPLICATIONS

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

### Details

#### Detailed Description

The *Mlh3*, mutL homolog 3 (E coli), gene encodes a DNA mismatch repair protein involved in mammalian meiotic recombination. These mice carry a targeted mutation of *Mlh3* in which exon 2 has been replaced by sequence encoding *lacZ* and a floxed PGK-NEO cassette. Mice homozygous for this targeted mutation are viable but sterile, and exhibit increased microsatellite instability rate. Heterozygotes are viable and fertile.

Spermatocytes of homozygous males arrest at pachytene, diplotene and metaphase stages, resulting in azoospermia.

Homozygous males exhibit small testis size when compared to wildtype controls. Oocytes of homozygous females fail to complete meiosis after fertilization. Gametes from homozygotes exhibit microsatellite instability and aneuploidy, in addition to meiotic arrest. No gene product (mRNA) is detected by Northern blot analysis of testes from homozygotes.

Homozygotes on the 129 Sv/Ev have a shortened life span, with a mean life span of 15.1 months.

An increased frequency of tumors of the gastrointestinal tract and other tissues is observed in homozygotes: more than 50% of homozygotes developed gastrointestinal tumors.

+ Development

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+ Expression Data

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+ Control Suggestions

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+ Selected References

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- Genetics

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+ *Mlh3<sup>tm1Lpkn</sup>*

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- Disease/Phenotype

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+ Disease Terms

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+ Research Areas By Genotype

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+ Mammalian Phenotype Terms by Genotype

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+ References

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- Technical Support

C H A T   O  F L I N E

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

Separated PCR:[Mlh3<sup>tm1Lpkn</sup>](#)

[Genotyping resources and troubleshooting](#)

## Breeding Considerations

When maintaining a live colony, these mice can be bred as heterozygotes. Homozygotes are viable but are not fertile.

[Additional Breeding and Husbandry Support](#)

## Citation

When using the B6.129-*Mlh3<sup>tm1Lpkn</sup>*/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #018845 in your Materials and Methods section.

[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	GENOTYPE	PRICE
Cryo Recovery	Heterozygous or Wild type for Mlh3<tm1Lpkn>	\$2,854.50

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a [Dedicated Supply](#) for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

### Related Products and Services

Frozen Mouse Embryo	B6.129-Mlh3<tm1Lpkn>/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.

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Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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