

B6.Cg-Mir146^{tm1.1Bal} /J

Stock No: 016239 | Mir-146a-

 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](#)

autoimmune diseases, lymphoproliferative and myeloproliferative disease, the FOXP3-miR-146-NF-KB axis and cancer.

Donating Investigator

Dr. David Baltimore, California Institute of Technology

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

Mir146^{tm1.1Bal}

Alele Type

Gene Symbol

Gene Name

Targeted (Null/Knockout)

Mir146

microRNA 146

VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research

Cancer 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 mutation develop splenomegaly (due to both myeloproliferation and expanded hematopoiesis), lymphadenopathy, multi-organ inflammation with lymphocytic and monocytic infiltrates, tissue damage, and reduced lifespan. At 6-8 weeks of age, homozygotes do not display a visible autoimmune or inflammatory phenotype. By 6-8 months of age, homozygotes start to develop lymphoproliferative and myeloproliferative disease, and a 60-fold higher titer for auto-antibodies against double-stranded DNA compared to wildtype controls. As mice age, they develop anemia, thrombocytopenia, lymphopenia, extramedullary erythropoiesis, as well as tumors in secondary lymphoid organs (mostly in the spleen). By 1 year of age, the mice exhibit a severe phenotype. Homozygotes on the 129.B6 background have a survival rate of less than 20%, while approximately 40% of knock out mice on the C57BL/6 background survive past 500 days, as compared to the more than 80% survival rate of wildtype controls.

Homozygotes exhibit an enhanced inflammatory response to endotoxin-challenge, due to macrophage hyperresponsiveness, and are more susceptible to lethal LPS dose than wildtype controls. The increased numbers of regulatory T (Treg) cells found in the periphery, but not in the thymus, of mice homozygous for this targeted mutation is not alleviated by IFN γ blocker treatment. Prostate hyperplasia is detected in homozygotes as early as 9 months, early prostatic intraepithelial neoplasia (PIN) lesions at 12 months, with 60% of homozygotes developing PIN by 15 months of age. Northern Blot analysis of splenocytes isolated from homozygotes and qRT-PCR analysis of bone marrow, spleen and thymus from homozygotes do not detect gene product (mRNA). Mice that are homozygous for the targeted mutation are fertile and normal in size. Due to the presence of FVB in this strain, albino coat color has occurred in the colony here at The Jackson Laboratory.

Development

Control Suggestions

Selected References

Genetics

Mir146^{tm1.1Bal}

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:[Mir146-Alternate 1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, these mice can be bred as homozygotes. Due to the presence of FVB in this strain, albino coat color has occurred in the colony here at The Jackson Laboratory.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygote x Homozygote

Appearance

Due to the presence of FVB in this strain, albino coat color has occurred in the colony here at The Jackson Laboratory.

Citation

When using the Mir-146a- mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #016239 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

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 for Mir146<tm1.1Ba>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.Cg-Mir146<tm1.1Ba>/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