

MRL.Cg-B2m^{tm1Unc} Fas^{lpr}

Stock No: 002455

 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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Donating Investigator

Dr. Derry Roopenian, The Jackson Laboratory

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GENETIC OVERVIEW

Genetic Background

Generation

000485 MRL/MpJ-Fas^{lpr}/J

Fas^{lpr}

Alele Type

Spontaneous (Hypomorph)

Gene Symbol

Fas

Gene Name

Fas (TNF receptor superfamily member 6)

B2m^{tm1Unc}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

B2m

Gene Name

beta-2 microglobulin

VIEW GENETICS

RESEARCH APPLICATIONS

Hematological Research

Internal/Organ Research

Immunology, Inflammation and Autoimmunity Research

Research Tools

Metabolism Research

Apoptosis Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Mice homozygous for both the lymphoproliferation spontaneous mutation (Fas^{lpr}) and the $B2m^{tm1Unc}$ targeted mutation are viable and fertile. Class I molecule-deficient $B2m^{tm1Unc}$ mice were backcrossed to MRL/MpJ- Fas^{lpr} to study the role of MHC class I molecules in the development of systemic autoimmune disease. Double homozygous mutant mice demonstrated a substantial reduction in $CD4^+ CD8^-$ T cells and a diminution of autoimmune disease. Specifically, hypergammaglobulinemia; autoantibodies including anti-DNA, anti-Smith antigen, and rheumatoid factor; and glomerulonephritis were significantly reduced compared to MRL/MpJ- Fas^{lpr} homozygous mice. Moreover, the pattern of hypergammaglobulinemia suggests that the requirement for MHC class I proteins is restricted temporally to later stages of the disease.

Development

Control Suggestions

Selected References

Genetics

Fas^{lpr}

$B2m^{tm1Unc}$

– 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:B2m](#)

[Standard PCR:Fas](#)

[Standard PCR:Fas MCA](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

This double mutant strain is maintained by mating homozygous siblings. Only homozygous mice may be ordered. Expected coat color from breeding: albino

[Additional Breeding and Husbandry Support](#)

Appearance

B2m: albino

Related Genotype: *a/a Tyr^c/Tyr^c*

Fas^{lpr}: albino, affected

Related Genotype: *a/a B2m^{tm1Unc}/B2m^{tm1Unc} Tyr^c/Tyr^c Fas^{lpr}/Fas^{lpr}*

Citation

When using the MRL.Cg-*B2m^{tm1Unc} Fas^{lpr}* mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #002455 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	Homozygous for B2m<tm1Unc>, Homozygous for Fas<lpr>, 1 pair minimum	\$2,854.50

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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.

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

LICENSING INFORMATION

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By Gene

By Collection



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