The Jackson Laboratory

B6.129S4-*Cd48* ^{tm1Rsr} /EpaulJ

Stock No: **023536** | Slamf2-/-

Congenic, Targeted Mutation

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

PLACE ORDER

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are suitable for use in applications related to the study of T-cell tolerance and systemic lupus erythematosus.

Donating Investigator

Elahna Paul, Massachusetts General Hospital

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GENETIC OVERVIEW

Genetic Background	Generation

Cd48^{tm1Rsr}

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	*Cd48*	CD48 antigen

VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research
Hematological Research
Research Tools
Cancer Research

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

The *Cd48* gene, also know as *Slamf2* (signaling lymphocytic activation molecule 2), encodes for a lymphocyte cell surface antigen that binds CD2 and CD244 and is involved in regulation of T cell activation.
These mice carry a targeted mutation for *Cd48*, in which a NEO cassette has replaced the exon encoding the immunoglobulin-V-like domain (the binding domain for CD2). Mice that are homozygous for the targeted mutation are viable and fertile. No cell surface CD48 protein is detected by flow cytometric analysis of thymocytes and splenocytes from homozygous animals. Female homozygotes develop auto-antibodies by 3 months, and glomerulonephritis by 6 months of age.
Homozygotes exhibit increased numbers of short term hematopoietic stem cells (HSC) and multipotent progenitor cells, while decreased numbers of myeloid progenitor cells. HSCs from homozygotes have impaired short term engraftment in transplantation studies, as well as defective proliferation (increased quiescence). Cytokine and interferon gamma levels in the bone marrow of homozygotes are significantly reduced. Homozygotes on the congenic C57BL/6 background have a shortened lifespan (most die by 80 weeks of age) compared to wildtype controls. By approximately 16 weeks of age, most homozygotes have developed tumors (predominantly lymphomas).

Development

Control Suggestions

Selected References

Genetics

Cd48^{tm1Rsr}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Standard PCR:Cd48-Alterante 2
Genotyping resources and troubleshooting

Breeding Considerations

Although homozygous mice are fertile, The Jackson Laboratory Repository maintains its live colony by breeding heterozygous mice together, to wildtype mice from the colony or to C57BL/6J inbred mice (Stock No. 000664).

Additional Breeding and Husbandry Support

Citation

When using the Slamf2-/- mouse strain in a publication, please cite the originating article(s) and include JAX stock #023536 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	Heterozygous for Cd48<tm1Rsr>	$2,854.50

RELATED PRODUCTS AND SERVICES		
Frozen Mouse Embryo	B6.129S4-Cd48<tm1Rsr>/EpaulJ Frozen Embryo	$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

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

TOMORROW'S CURES

Choose other country or region

Did you find what you were looking for?

Yes No