

BXSB.129S2(C)-Cd1^{tm1Gru}/DcrJ

Stock No: **021565** | CD1

 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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BXSB.Yaa CD1^{-/-} (BXSB.Yaa Cd1d1/Cd1d2^{-/-}) mice are a BXSB-congenic strain carrying a null mutation of the CD1 antigen complex that abolished both CD1.1 (*Cd1d1*) and CD1.2 (*Cd1d2*) expression; resulting in natural killer T cell (NKT)-deficiency. These BXSB.Yaa CD1^{-/-} mice may be useful in studying the role of natural killer T cells (NKTs) in spontaneous lupus-like autoimmune syndrome.

Donating Investigator

Dr. Derry Roopenian, The Jackson Laboratory

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GENETIC OVERVIEW

Genetic Background Generation

Yaa

Alele Type	Gene Symbol	Gene Name
Spontaneous	Yaa	accelerated autoimmunity and lymphoproliferation transposition

Cd1^{tm1Gru}

Alele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	<i>Cd1</i>	CD1 antigen complex

VIEW GENETICS

RESEARCH APPLICATIONS

VIEW ALL RESEARCH APPLICATION

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

BXSB.Yaa CD1^{-/-} (BXSB.Yaa Cd1d1/Cd1d2^{-/-}) mice are a BXSB-congenic strain carrying a null mutation of the CD1 antigen complex; both CD1.1 (*Cd1d1*) and CD1.2 (*Cd1d2*) expression is abolished. Homozygous (CD1^{-/-}) mice are natural killer T cell (NKT)-deficient.

Homozygous mice are viable and fertile. Both homozygous and heterozygous mice develop spontaneous lupus-like autoimmune syndrome similarly to BXSB/MpJ inbred mice (Stock No. [000740](#)): mortality in males starts at ~13 weeks of age with 50% lethality by ~30 weeks and 76% lethality by ~40 weeks. Females develop a greatly attenuated form of autoimmune disease because they lack *Yaa*.

BALB/c-congenic mice harboring this null mutation of the CD1 antigen complex are described and available from The Jackson Laboratory Repository as Stock No. [003814](#).

Development

Control Suggestions

Selected References

Genetics

[+ Yaa](#)

[+ Cd1^{tm1Gru}](#)

[- 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:[Cd1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

To maintain the live colony, homozygous mice may be bred together. Both homozygous and heterozygous mice develop spontaneous lupus-like autoimmune syndrome similarly to BXSb/MpJ inbred mice (Stock No. [000740](#)): mortality in males starts at ~13 weeks of age with 50% lethality by ~30 weeks and 76% lethality by ~40 weeks. Females develop a greatly attenuated form of autoimmune disease because they lack *Yaa*. The expected coat color is white-bellied agouti.

[Additional Breeding and Husbandry Support](#)

Mating System

Heterozygote x Heterozygote

Citation

When using the CD1⁻ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #021565 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 Cd1<tm1Gru>	\$2,854.50

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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

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LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

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