

B6.129P2-Cd1d1^{tm2Aben}/J

Stock No: **016930**

 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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abnormalities in intracellular trafficking, antigen presentation, and T cell development.

Donating Investigator

Albert Bendelac , University of Chicago

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GENETIC OVERVIEW

Genetic Background

Generation

Cd1d1^{tm2Aben}

Alele Type

Gene Symbol

Gene Name

Targeted

Cd1d1

CD1d1 antigen

VIEW GENETICS

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research

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

Sequence encoding the cytoplasmic tail that governs steady-state accumulation of CD1D1 (CD1d1 antigen) protein in endosome compartments was deleted in these targeted mutation mice. A neomycin gene was left in the 3' untranslated region of *Cd1d1*. Homozygotes show multiple and selective abnormalities in intracellular trafficking of CD1D and lipid antigen presentation, as well as natural killer T (NKT) cell development. On average, the mutant CD1D protein is expressed on the cell surface at 40% higher density than with wildtype protein in thymocytes, B cells and dendritic cells. Confocal microscopic analysis shows that the abundant intracellular stores of CD1D normally found in lysosome-associated membrane protein 1-positive (LAMP-1⁺) late endosomes and lysosomes is markedly depleted. A marked reduction in the number of V α 14 natural killer T (NKT) cells in the thymus and peripheral tissues including the spleen and liver was also noted. These mice may be helpful in studies of CD1D trafficking and antigen presentation pathways as well as the development of CD1D-restricted T cells.

Development

Control Suggestions

Selected References

Genetics

Cd1d1^{tm2Aben}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

- 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

Separated PCR: Cd1d1

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintained as a live colony, homozygotes or heterozygotes may be bred.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6.129P2-*Cd1d1*^{tm2Aben}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #016930 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 Cd1d1<tm2Aben>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

B6.129P2-Cd1d1<tm2Aben>/J Frozen Embryo

\$2595.00

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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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[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

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