

B6.129X-Cxcr4^{tm1Qma} /J

Stock No: **004341** | CXCR4-

 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](#)

vascularization defect.

Donating Investigator

IMR Colony, The Jackson Laboratory

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

Cxcr4^{tm1Qma}

Alele Type

Gene Symbol

Gene Name

Targeted (Null/Knockout)

Cxcr4

chemokine (C-X-C motif) receptor 4

VIEW GENETICS

RESEARCH APPLICATIONS

Hematological Research

Neurobiology Research

Developmental Biology Research

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

Mice that are homozygous null for the *Cxcr4* gene die perinatally, with ~30% dying by embryonic day 18.5. Viable embryos are slightly smaller than wild type mice and exhibit vascular congestion in the kidneys, interstitial hemorrhages, and abnormalities in bone marrow and cerebellum. Homozygote embryos also show reduced B-lymphopoiesis, reduced myelopoiesis in fetal liver and an absence of myelopoiesis in bone marrow. Histological examination reveals a distorted architecture in the tissues of the cerebellum, featuring an attenuated external granule cell layer and an ectopic placement of Purkinje cells.

Cxcr4 encodes a receptor commonly called CXCR4, the ligand of which is the chemokine stromal cell-derived factor 1 (SDF-1), an important regulator of hematopoietic cell development, migration and proliferation. CXCR4 also functions as a coreceptor for the entry of T-tropic strains of HIV-1 into CD4⁺ T cells.

In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. This is the case for the strain above. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

Development

Control Suggestions

Selected References

Genetics

Cxcr4^{tm1Qma}

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:[Cxcr4](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

This strain originated on a B6;129X background and has been backcrossed to C57BL/6 for at least eight generations (2/03). Homozygous mice die perinatally. Coat color expected from breeding:Black

[Additional Breeding and Husbandry Support](#)

Citation

When using the CXCR4- mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004341 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.

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Cxcr4<tm1Qma>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.129X-Cxcr4<tm1Qma>/J 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](#)

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

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