

NOD.129P2(Cg)-*Cd19*^{tm1(cre)Cgn} /J

Stock No: 023806 | *Cd19*^{cre}

 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](#)

gene (*Cd19*); both abolishing endogenous *Cd19* gene function and placing *cre* expression under the control of the endogenous *Cd19* promoter/enhancer elements. Cre recombinase expression is directed at the earliest stages and throughout B-lymphocyte development and differentiation. Homozygous mice are also useful for studying B cell-deficiency.

Donating Investigator

T1DR Colony, The Jackson Laboratory

Klaus Rajewsky, Max Delbruck Centre for Molecular Medicine

READ MORE +

GENETIC OVERVIEW

Genetic Background

001976 NOD/ShiLtJ

Generation

Cd19^{tm1(cre)Cgn}

Alele Type

Targeted (Recombinase-expressing)

Gene Symbol

Cd19

Gene Name

CD19 antigen

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Immunology, Inflammation and Autoimmunity Research

Developmental Biology Research

Hematological Research

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Homozygous mutant mice are viable, fertile, normal in size, and do not display any gross physical or behavioral abnormalities. Homozygotes have a deficiency in the B-1 subset of B-lymphocytes along with a concomitant reduction in serum IgM. Their ability to respond to T-cell-dependent antigens is severely impaired, and they fail to form splenic germinal centers.

In addition to disrupting the targeted gene, the targeting construct also introduced a *cre* cassette into exon 2 of the targeted gene, effectively placing *cre* expression under the control of the endogenous promoter. The *Cd19* promoter specifically directs *cre* expression at the earliest stages and throughout B-lymphocyte development and differentiation. Although homozygous mutant mice are *Cd19*-deficient, heterozygous mice are phenotypically normal, and can be used for specific deletion of *loxP*-flanked (floxed) targets in B-lymphocytes.

Mice on the NOD/ShiLtJ inbred background (Stock No. [001976](#)) develop spontaneous autoimmune Type 1 diabetes. As such, these *Cd19*-Cre knockin/knockout mice (both homozygous and heterozygous) may be given Complete Freund's Adjuvant (CFA) prior to six weeks of age to delay diabetes onset.

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. The parental line, C57BL/6-congenic CD19-Cre knockin/knockout mice, are available and described as Stock No. [006785](#). It should be noted that the phenotype of these NOD/ShiLtJ-congenic CD19-Cre knockin/knockout mice (Stock No. [023806](#)) could vary from that of the C57BL/6-congenic parental line from which it was derived. We may modify the NOD/ShiLtJ-congenic strain description if necessary as published results become available.

Development

Expression Data

Control Suggestions

Genetics

[+](#) *Cd19^{tm1}(cre)^{Cgn}*

[-](#) 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

Separated PCR:[Cd19 Alternate2](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Mutant mice were bred to NOD/ShiLtJ inbred mice (Stock No. [001976](#)) for many generations using a marker-assisted, speed congenic approach to generate this NOD/ShiLtJ-congenic CD19-Cre knockin/knockout strain (Stock No. 023806).

In 2007, the donating investigator of the C57BL/6-congenic CD19-Cre strain (Stock No. [006785](#)) reported that homozygotes did not breed well after three months of age. The C57BL/6-congenic homozygous breeding pairs maintained at The Jackson Laboratory Repository have shown no such problems. Therefore, when maintaining the live NOD/ShiLtJ-congenic CD19-Cre knockin/knockout colony (Stock No. 023806), homozygous mice may be bred together.

Mice on the NOD/ShiLtJ inbred background (Stock No. [001976](#)) develop spontaneous autoimmune Type 1 diabetes. As such, these Cd19-Cre knockin/knockout mice (both homozygous and heterozygous) may be given Complete Freund's Adjuvant (CFA) prior to six weeks of age to delay diabetes onset.

[Additional Breeding and Husbandry Support](#)

Citation

When using the Cd19cre mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #023806 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



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 forCd19<tm1(cre)Cgn>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	NOD.129P2(Cg)-Cd19<tm1(cre)Cgn>/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

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







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