

B6.129(Cg)-Cx3cr1^{tm1Litt} Ccr2^{tm2.1ffc}/JernJ

Stock No: **032127** | Ccr2^{RFP} Cx3cr1^{GFP}

 Congenic, Targeted Mutation

Live mice available in varying quantities. Ask Customer Service for details.

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Cx3cr1^{GFP} are knock-in/knock-out alleles. These mice may be suitable for use in studies tracking myeloid lineage cell subpopulations, monocyte recruitment in inflammatory responses, leukocyte migration and trafficking, as well as for transplantation studies.

Donating Investigator

Joel D Ernst, New York University School of Medicine

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GENETIC OVERVIEW

Genetic Background

Generation

?+pN1F1
(2019-03-04 00:00:00)

Ccr2^{tm2.1ffc}

Alele Type

Targeted (Reporter, Null/Knockout)

Gene Symbol

Ccr2

Gene Name

chemokine (C-C motif) receptor 2

Cx3cr1^{tm1Litt}

Alele Type

Targeted (Reporter, Null/Knockout)

Gene Symbol

Cx3cr1

Gene Name

chemokine (C-X3-C motif) receptor 1

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools
Immunology, Inflammation and Autoimmunity Research
Neurobiology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$255.00 Domestic price for female 4-week

VIEW PRICE LIST

Details

Detailed Description

CCR2 is a chemokine receptor expressed on monocytes which directs their recruitment to sites of inflammation found in diseases such as multiple sclerosis, atherosclerosis, rheumatoid arthritis, and experimental autoimmune encephalitis (EAE), following activation by monocyte chemoattractant proteins. The *Cx3cr1* gene encodes the receptor for C-X3-C motif chemokine (CX3CR1), also known as fractalkine, which is involved in leukocyte adhesion and migration. The *Cx3cr1* and *Ccr2* genes are located in close proximity on mouse Chromosome 9.

These $Ccr2^{RFP} Cx3cr1^{GFP}$ dual-reporter mutant mice, also called R2X3-RGFP, carry a monomeric red fluorescent protein (RFP) knock-in/knock-out allele of *Ccr2* and a green fluorescent protein (EGFP) knock-in/knock-out allele of *Cx3cr1*. Red fluorescent protein expression is detected in CCR2 positive peripheral monocytes, T cells and NK cells; and green fluorescent protein expression is detected in monocytes, dendritic cells, NK cells and brain microglia. Mice that are homozygous for both mutations are viable and fertile. These double homozygotes lack functional CCR2 and CX3CR1 receptors.

Double homozygous mice exhibit impaired monocyte recruitment and enhanced susceptibility to experimental autoimmune encephalomyelitis.

Development

Expression Data

Control Suggestions

Selected References

Genetics

[+](#) [Ccr2^{tm2.1lf}](#)

[+](#) [Cx3cr1^{tm1Litt}](#)

[-](#) 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:[Ccr2](#)

Standard PCR:[Cx3cr1alternate1](#)

Probe:[Cx3cr1](#) [Probe Alternate1](#)

Probe:[Ccr2](#) [Probe](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

New Diet as of March 2015: Lab Diet® 5K0Q (6% fat)

Breeding Considerations

When maintaining a live colony, these mice can be bred as homozygous for both alleles. Mice that are homozygous for both alleles are viable and fertile. The *Cx3cr1* and *Ccr2* genes are located in close proximity on mouse Chromosome 9.

[Additional Breeding and Husbandry Support](#)

Mating System

Homozygous *Cx3cr1* Homozygous *Ccr2* x Homozygous *Cx3cr1* Homozygous *Ccr2*

Citation

When using the *Ccr2*^{RFP} *Cx3cr1*^{GFP} mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #032127 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX18 \(Maximum\)](#)

🔍 Pricing & Availability



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Available

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Live Mouse			
AGE	SEX	GENOTYPE	PRICE
4 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
5 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
6 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
7 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
8 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
9 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
10 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
11 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
12 weeks	Female	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00
	Male	Homozygous for Cx3cr1 ^{tm1Litt} Homozygous for Ccr2 ^{tm2.1fc}	\$255.00

Related Products and Services

Frozen Mouse Embryo	B6.129(Cg)-Cx3cr1 ^{tm1Litt} Ccr2 ^{tm2.1fc} /JernJ	\$2595.00
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