B6.129(Cg)-Ccr2<sup>Im2.1lfc</sup>/J

Stock No: 017586 | Ccr2<sup>RFP</sup>

Congenic, Targeted Mutation

3–6 week lead time for most orders depending on quantity and age range requested

Also Known As: Ccr2<sup>RFP</sup>

In this strain, a monomeric red fluorescent protein (RFP) sequence replaces the coding sequence of the chemokine (C-C motif) receptor 2 (Ccr2) gene, abolishing gene function. These mice may be useful for studying the role of CCR2 during monocyte recruitment to sites of inflammation.

Donating Investigator
Israel F. Charo, Gladstone Inst of Cardiovascular Disease, UCSF

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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</thead>
<tbody>
<tr>
<td>N9pN1 x N1F6</td>
<td>(2019-01-04 00:00:00)</td>
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<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Reporter, Null/Knockout)</td>
<td>Ccr2</td>
<td>chemokine (C-C motif) receptor 2</td>
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</table>

RESEARCH APPLICATIONS

Research Tools
Internal/Organ Research
Immunology, Inflammation and Autoimmunity Research

VIEW GENETICS
VIEW ALL RESEARCH APPLICATIONS
Details

Detailed Description

In this strain, a monomeric red fluorescent protein (RFP) sequence replaces the coding sequence of the chemokine (C-C motif) receptor 2 (Ccr2) gene, abolishing gene function. 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 (MCPs). CCR2 is essential to innate and adaptive immune responses during injury repair. Homozygous mice are viable, fertile, normal in size, and do not display any gross physical or behavioral abnormalities. In these mice RFP expression is seen in circulating monocytes, T cells, and natural killer cells. They exhibit a reduction in monocyte recruitment during thioglycolate-induced peritonitis and EAE. These mice may be useful for studying the role of CCR2 during monocyte recruitment to sites of inflammation.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Ccr2^b21/c

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Standard PCR: Ccr2\textsuperscript{tm2.1fc}
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations
When maintaining a live colony, homozygous mice may be bred together.
Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Citation
When using the Ccr2\textsuperscript{tm2.1fc} mouse strain in a publication, please cite the originating article(s) and include JAX stock #017586 in your Materials and Methods section.
Facility Barrier Level Descriptions

AX12 (Maximum)

Pricing & Availability

3–6 week lead time for most orders depending on quantity and age range requested

<table>
<thead>
<tr>
<th>Repository Live</th>
</tr>
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</table>

Domestic International
Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>Live Mouse</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Approx 4–8 weeks</td>
<td>Female</td>
<td>Homozygous for Ccr2\textsuperscript{tm2.1fc}</td>
<td>$231.00</td>
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<tr>
<td>Male</td>
<td>Homozygous for Ccr2\textsuperscript{tm2.1fc}</td>
<td>$231.00</td>
<td></td>
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</tbody>
</table>

Related Products and Services

| Frozen Mouse Embryo | $2,595.00 per straw or vial |

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