**Overview**

GM-CSF KO mice may be useful for studying the development and activation of hematopoietic cells.

**Donating Investigator**

Glenn Dranoff, Dana Farber Cancer Institute

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
<td>N9+pN1F6</td>
<td>(2018-11-21 00:00:00)</td>
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Csf2<sup>im1Mig</sup>

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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Null/Knockout)</td>
<td>Csf2</td>
<td>colony stimulating factor 2 (granulocyte-macrophage)</td>
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</table>

**RESEARCH APPLICATIONS**

Immunology, Inflammation and Autoimmunity Research

Hematological Research

**BASE PRICE**

Starting at:

$255.00 Domestic price for female 4-week

**Details**

**Detailed Description**

GM-CSF KO mice have a neomycin cassette replacing exons 3 and 4 of the colony stimulating factor 2 (granulocyte-macrophage) (Csf2) gene. GM-CSF stimulates stem cells to produce granulocytes (neutrophils, eosinophils, and basophils) and monocytes. Homozygous mice are viable and fertile. Aged GM-CSF KO mice show impaired phagocytosis of apoptotic cells and develop a systemic lupus erythematosus (SLE)-like disorder. They also exhibit immune-mediated glomerulonephritis with B and T cell aggregates in the renal pelvis and liver. These mice show an increase in intensity of lung pathology resembling pulmonary alveolar proteinosis after infection with Pneumocystis carinii pneumonia.

**Development**

**Control Suggestions**

**Selected References**

**Genetics**

**Csf2<sup>im1Mig</sup>**

**Disease/Phenotype**
Genotyping Protocols
Standard PCR: Csf2<sup>tm1Mig</sup>
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 B6.129-Csf2<sup>tm1Mig</sup>/J mouse strain in a publication, please cite the originating articles and include JAX stock #026812 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

AX12 (Maximum)

Pricing & Availability

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

Available

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