These Csf3r knockout mice are useful for studying granulopoiesis and hematopoietic stem cell regulation.

Donating Investigator
Daniel C. Link, Washington University Medical School

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Csf3r&lt;sup&gt;tm1Link&lt;/sup&gt;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Csf3r</td>
<td>colony stimulating factor 3 receptor (granulocyte)</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

- Immunology, Inflammation and Autoimmunity Research
- Apoptosis Research
- Cell Biology Research

BASE PRICE

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
Details

Detailed Description

A neo cassette replaces exons 3-8 of the endogenous colony stimulating factor 3 receptor (Csf3r) gene, abolishing gene function. Homozygotes are viable and fertile. CSF3R is the transmembrane receptor for colony stimulating factor 3 (G-CSF), a cytokine that controls the production, differentiation, and function of granulocytes. Expressed in precursor cells in the bone marrow, CSF3R also initiates the maturation of granulocytes. These mice contain a decreased number of circulating neutrophils. They also exhibit a 50% decrease of mature myeloid cells, metamyelocytes, and hematopoietic stem cells, and granulocytes in bone marrow. Neutrophils from these mice display impaired chemotaxis in response to G-CSF and Interleukin 8 (IL8). Increased apoptosis is evident in cultured bone marrow derived mononuclear cells.

Development

Control Suggestions

Selected References

Genetics

Csf3rtm1Link

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References
Technical Support

Genotyping Protocols
Standard PCR: Csf3r Alternate1
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, homozygous mice may be bred together. Homozygous mice are produced at a reduced Mendelian ratio (~10%) from heterozygous matings.

Additional Breeding and Husbandry Support

Citation
When using the G-CSFR- mouse strain in a publication, please cite the originating article(s) and include JAX stock #017838 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.

<table>
<thead>
<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Csf3r&lt;tm1Link&gt;</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>

Domestic
Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frozen Mouse Embryo</td>
<td>B6.129X1(Cg)-Csf3r&lt;tm1Link&gt;/J</td>
<td>$2,595.00</td>
</tr>
</tbody>
</table>

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