B6.129S7-Il1r1/J

Stock No: 003245 | Il1r1 -

Congenic, Targeted Mutation

AVAILABLE

PLACE ORDER

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

Overview
Also Known As: Il1r1\textsuperscript{−}

IL-1 receptor KO mice exhibit altered innate immune and inflammatory responses and show multiple effects on physiological systems and behavior.

Donating Investigator

Dr. Jacques Peschon, Amgen

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>N5+N3F11</td>
<td>(2019-06-17 00:00:00)</td>
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</table>

\textit{Il1r1}\textsuperscript{tm1Imx}

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>\textit{Il1r1}</td>
<td>interleukin 1 receptor, type I</td>
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</table>

**RESEARCH APPLICATIONS**

Cancer Research

Immunology, Inflammation and Autoimmunity Research
Interleukin 1 receptor, type I, is a receptor for interleukin 1 (IL1), which affects many cytokine induced immune and inflammatory responses. Mice homozygous for the $\text{Il1r}^{\text{tm1Imx}}$ targeted mutation therefore fail to respond to IL1 and exhibit an altered immune response to many different target proteins. Some effects seen from knocking out this receptor include defective responses to certain inflammatory agents such as turpentine and altered response to various pathogenic organisms such as $S. \text{aureus}$ and $C. \text{pneumoniae}$.

Other observed effects include enhanced glucose homeostasis, enhanced insulin sensitivity of adipose tissue, reduction in diet-induced systemic atherosclerosis, improved restoration of normal skin architecture in wounds, increased incidence of acute convulsive seizures induced by pentyleneetrazole, and a decrease in anxiety-related behaviors.
Genotyping Protocols
Standard PCR: Il1r1^{tm1Imx}

Genotyping resources and troubleshooting

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

Breeding Considerations
This strain may be maintained by homozygous sibling matings. Expected coat color from breeding is black.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black  
Related Genotype: a/a

Citation
When using the Il1r1 mouse strain in a publication, please cite the originating article(s) and include JAX stock #003245 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

Pricing & Availability

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

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
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<th>PRICE</th>
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<td>Female</td>
<td>Homozygous for Il1r1^{tm1Imx}</td>
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Phone: 207-288-6470  
Email: TechTran@jax.org

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By Allele

By Gene

By Collection

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