Also Known As: Il1r1^{-}

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
RESEARCH APPLICATIONS
Cancer Research
Immunology, Inflammation and Autoimmunity Research

BASE PRICE
Starting at:
$230.00 Domestic price for female 5-week

Details

Detailed Description

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 IL1r<sup>tm1Imx</sup> 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. aureus and C. 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 pentylenetetrazole, and a decrease in anxiety-related behaviors.

Development

Control Suggestions

Selected References
Genetics

Il1r1<sup>tm1Imx</sup>

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

Genotyping Protocols
Standard PCR: Il1r1-Alternate 1
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<sup>_−</sup> 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
Pricing & Availability

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

Available

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PAYMENT TERMS AND CONDITIONS

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THE JACKSON LABORATORY'S GENOTYPE PROMISE
The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain's phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee breeding performance and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.