ALR/LtJ

Stock No: 003070

Inbred Strain

CRYO RECOVERY

PLACE ORDER

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

Overview

Also Known As: Alloxan Resistance

Mice of the inbred strain, ALR/LtJ, mice are resistant to alloxan or streptozotocin, and do not develop type 1 insulin dependent diabetes.

READ MORE +

Genetic Overview

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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VIEW GENETICS

Research Applications

Diabetes and Obesity Research
Details

Important Note
This strain is homozygous for Cdh23<sup>ahl</sup>, the age related hearing loss 1 mutation, which on this background results in progressive hearing loss with onset prior to three months of age.

Detailed Description

ALS/LtJ (Stock No. 003072) and ALR/LtJ inbred strains are of interest to investigators across a wide range of scientific disciplines including type 1 and type 2 diabetes, obesity, metabolism and toxicology research. Treatment of alloxan or streptozotocin causing pancreatic beta cell destruction, leads to severe hyperglycemia and hypoinsulinemia in ALS/LtJ mice. ALR/LtJ mice are resistant to these toxins. ALR/LtJ mice are of particular interest to investigators studying the immunogenetics of NOD/ShiLtJ mice in that the ALR/LtJ MHC haplotype (H2<sup>al</sup>) is a variant of the diabetogenic NOD H2<sup>bg</sup> haplotype. The (H2<sup>al</sup>) haplotype is identical to the H2<sup>bg</sup> haplotype from the H2-K end of the complex through the class II and class III region distal to Hsp70. However, at the distal H2-D end of the complex, ALR/LtJ mice have a rare H2-D<sup>al</sup> allele. Despite the similarities to the NOD/ShiLtJ mice, ALR/LtJ mice do not develop type 1 insulin dependent diabetes and thus provide an important control strain for NOD/ShiLtJ. ALR/Lt islets are unusually resistant in vitro to beta cell selective toxins known to generate free radicals (alloxan and streptozotocin). In addition, ALR/Lt islets are resistant to cytokine-mediated destruction. This resistance is correlated with an ALR strain-specific systematic elevation of enzymes and molecules associated with dissipation of free radicals. ALR/Lt mice of both sexes not treated with alloxan exhibit normal glucose tolerance, but gain weight rapidly, with females exhibiting male-like weight at 50 weeks of age. Understanding the genetic basis for the resistance of ALR mice to free radical mediated stressors, like alloxan and streptozotocin, as well as to immune system mediated stress, should prove valuable to pharmacologists interested in a variety of autoimmune and other diseases in which reactive oxygen species are associated with pathology.

Development

Selected References

Genetics

Cdh23<sup>ahl</sup>

mt-Tr<sup>n2</sup>
**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**Phenotype Information**

**References**

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**Technical Support**

CONTACT TECHNICAL SUPPORT

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**Genotyping Protocols**

Separated PCR: GAL Panel
Genotyping resources and troubleshooting

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**Appearance**

albino
Related Genotype: a/a Tyr<sup>c</sup>/Tyr<sup>c</sup>

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**Citation**

**Animal Health Reports**
When using the ALR/LtJ mouse strain in a publication, please include JAX stock #003070 in your Materials and Methods section.

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, **G200**

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**Pricing & Availability**

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

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

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Inbred, 1 pair minimum will be supplied</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>
We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

| Related Products and Services | Frozen Mouse Embryo | $2,595.00 per straw or vial |

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- By Allele
- By Gene
- By Collection

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