Also Known As: Alloxan Susceptibility

ALS/LtJ and ALR/LtJ (Stock No. 003070) inbred strains are useful for a wide range of studies 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. Alloxan-untreated ALS/Lt males exhibit impaired glucose tolerance when tested by intraperitoneal administration of glucose, and become hyperinsulinemic. ALS/LtJ mice contain genes predisposing to both experimentally-induced type 1 and spontaneously-developing type 2 diabetes mellitus. ALS/Lt mice exhibit significantly lower antioxidant defenses than do ALR/Lt. ALS/Lt is a useful control strain for comparing inbred strain susceptibility to free radical-mediated damage.

BASE PRICE
Starting at:

$2,854.50 Domestic price Cryo Recovery
**Details**

**Important Note**
This strain is homozygous for \( Cdh2^{ahl} \), the age related hearing loss 1 mutation, which on this background results in progressive hearing loss with onset prior to three months of age and for \( Gnat^{cpfl3} \), cone photoreceptor function loss 3, which affects bright light (photopic) vision.

**Detailed Description**
ALS/LtJ and ALR/LtJ (Stock No. 003070) 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. By 34 weeks of age, both untreated ALS/Lt and ALR/Lt males fed a 6% fat-containing chow diet attain a mean body weight of around 50 grams. Genome wide scan comparison shows that ALS/LtJ mice are more closely related to NON/ShiLtJ mice (they share the \( H2^{nb1} \) haplotype) than to NOD/ShiLtJ. Like two other ICR-derived inbred strains selected in Japan (NON and NSY), alloxan-untreated ALS/Lt males exhibit impaired glucose tolerance when tested by intraperitoneal administration of glucose. However, unlike NON/ShiLt males, which exhibit impaired glucose tolerance in the presence of low plasma insulin concentrations, alloxan-untreated ALS/LtJ males become hyperinsulinemic by 10 weeks of age and maintain hyperinsulinemia as they age. Four untreated males and three females in a research colony have spontaneously developed type 2 diabetes mellitus between nine to 32 weeks of age (EH Leiter, unpublished observations). ALS/LtJ mice thus contain genes predisposing to both experimentally-induced type 1 and spontaneously-developing type 2 diabetes mellitus. Since ALS/LtJ mice exhibit significantly lower antioxidant defenses than do ALR/LtJ yet the two strains are closely related, ALS/LtJ is a useful control strain for comparing inbred strain susceptibility to free radical-mediated damage.

**Development**

**Selected References**

**Genetics**

\( Cdh2^{ahl} \)

\( Gnat^{cpfl3} \)

\( mt-Tr^{m1} \)

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**Phenotype Information**
Genotyping Protocols
Genotyping resources and troubleshooting

Appearance
albino
Related Genotype: \( a/a \) \( Tyr^P/Tyr^P \)

Animal Health Reports
When using the ALS/LtJ mouse strain in a publication, please include JAX stock #003072 in your Materials and Methods section.

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</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Inbred, 1 pair minimum will be supplied</td>
<td>$2,854.50</td>
</tr>
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</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.

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Terms of Use

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