AKR/J
Stock No: 000648 | AKR
 Inbred Strain

AKR mice are useful in cancer, immunology, and metabolism research.

Also Known As: AK, AKR

AKR mice are useful in cancer, immunology, and metabolism research.

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td></td>
<td>Contact Technical Support</td>
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<td>(2018-07-27 00:00:00)</td>
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</table>

RESEARCH APPLICATIONS
Originally inbred at the Rockefeller Institute, AKR mice are widely used in cancer research for their high leukemia incidence (60-90%) and in immunology as a source of the Thy1.1 (theta AKR) antigen. AKR/J mice are viremic from birth, and express the ecotropic retrovirus AKV in all tissues. The hair interior defect (hid) mutation, a strain characteristic of AKR mice, causes alterations in hair development that is only evident microscopically. Adrenocortical lipid depletion (ald) in AKR mice is caused by a mutation in sterol O-acyltransferase 1 (Soat1), and leads to a truncated SOAT1 protein. AKR/J mice are relatively resistant to aortic lesion formation on a semi-synthetic high fat diet and are hyporesponsive to diets containing high levels of fat and cholesterol.

Selected References

Genetics

- Obq3AKR/J
- Il3ra
- Rmcf
- Rmcf
- \( Hc^0 \)
- \( Cdh23^{ahl} \)
- \( Mx1^{st} \)
- \( Obq4^{AKR/J} \)
- \( Ahr^d \)
- \( Cd5^b \)
- \( Tyro3^{m1} \)
- \( Soat1^{ald} \)
- \( Cox7a2^{l} \)
- \( Ogg1^{m1} \)

**Disease/Phenotype**

- Disease Terms
- Research Areas By Phenotype
- Mammalian Phenotype Terms by Genotype
- Phenotype Information
- References

**Technical Support**
Genotyping Protocols
Sanger sequencing:
Genotyping resources and troubleshooting
Inbred mouse strains are maintained through sibling (sister x brother) matings; no genotyping required.

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

Breeding Considerations
This strain is a good breeder.

Additional Breeding and Husbandry Support
Mating System
Sibling x Sibling

Appearance
albino

Related Genotype: a/a Tyr<sup>c</sup> / Tyr<sup>c</sup> Soat<sup>1<sub>ald</sub></sup> / Soat<sup>1<sub>ald</sub></sup> hidhid

Citation
When using the AKR mouse strain in a publication, please include JAX stock #000648 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

MP16 (Standard)

Pricing & Availability
Sized to accommodate orders of up to 50 or more. Ask Customer Service for details.

Live Mouse

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<thead>
<tr>
<th>AGE</th>
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Email: TechTran@jax.org

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Related Strains

All

By Allele

By Gene

By Collection

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