Overview

Also Known As: B6-ApoE, Akita Double mutant, Apoe-null, Akita heterozygous, mice may be useful in studies of diabetes, metabolism, hyperglycemia, atherosclerosis, hypercholesterolemia, and diabetes-related macrovascular complications.

Donating Investigator

T1DR Colony, The Jackson Laboratory

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>002052</td>
<td></td>
</tr>
<tr>
<td>B6.129P2-Apoe&lt;sup&gt;tm1Unc&lt;/sup&gt;/J</td>
<td></td>
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</tbody>
</table>

**Apoe<sup>tm1Unc</sup>**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Apoe</td>
<td>apolipoprotein E</td>
</tr>
</tbody>
</table>

**Ins2<sup>Akita</sup>**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>Ins2</td>
<td>insulin II</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Diabetes and Obesity Research
Cell Biology Research
Endocrine Deficiency Research
Details

Detailed Description

Mice homozygous for the Akita spontaneous mutation are stunted and typically die postnataally by 12 weeks of age. Independently, heterozygous Akita mutant mice are a model of insulin dependent diabetes mellitus (IDDM) with severe hyperglycemia (see the datasheet for Stock No. 003548 for additional information). Apoe-null homozygotes have marked increase in total plasma cholesterol levels that are unaffected by age or sex (see the datasheet for Stock No. 002052 for additional information).

These double mutant mice (Apoe-null, Akita heterozygous) may be useful in studies of diabetes, metabolism, hyperglycemia, atherosclerosis, hypercholesterolemia, and diabetes-related macrovascular complications.

Development

Genetics

Apoe<sup>tm1Unc</sup>

Ins2<sup>Akita</sup>

Disease/Phenotype
Genotyping Protocols
Genotyping resources and troubleshooting

Citation
When using the B6-ApoE, Akita mouse strain in a publication, please cite the originating article(s) and include JAX stock #013040 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

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

Pricing & Availability

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

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<tr>
<th>SERVICE/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Homozygous for Apoe&lt;tm1Unc&gt;, Heterozygous or wild-type for</td>
<td>$2,854.50</td>
</tr>
</tbody>
</table>
PAYMENT TERMS AND CONDITIONS

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

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.