Mice homozygous for this Akt2 (thymoma viral proto-oncogene 2) mutant allele develop insulin resistance, hyperglycemia, impaired glucose tolerance, abnormal glucose uptake in muscle tissue, increased pancreatic beta-cell mass, and diabetes.
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Akt2^{tm1.1Mbb})</td>
<td></td>
</tr>
</tbody>
</table>

<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>Akt2</td>
<td>thymoma viral proto-oncogene 2</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

Research Tools
Diabetes and Obesity Research

**BASE PRICE**

Starting at:

$2,854.50 Domestic price Cryo Recovery

**Details**

Mice homozygous for this \(Akt2\) (thymoma viral proto-oncogene 2) mutant allele are viable and fertile. Homozygotes develop insulin resistance, hyperglycemia, impaired glucose tolerance, abnormal glucose uptake in muscle tissue, increased pancreatic beta-cell mass, and diabetes.

In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

**Development**

**Control Suggestions**
Genotyping Protocols

Standard PCR: Akt2<sup>tm1.1Mbb</sup>

Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, heterozygous or homozygous mice can be bred. Homozygous mice may have impaired fecundity as a result of diabetic phenotype.

Additional Breeding and Husbandry Support

Citation

When using the B6.129P2(Cg)-Akt2<sup>tm1.1Mbb</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #006966 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

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

Frozen Mouse Embryo

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or Wild-type for Cg-Akt2&lt;tm1.1Mbb&gt;</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.

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.

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Terms of Use
General Terms and Conditions

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Licensing Information
Phone: 207-288-6470
Email: TechTran@jax.org

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**Related Strains**

- All
- By Allele
- By Gene