B6.BKS(Leprdb)J

Stock No: 000697 | B6 db

Congenic, Spontaneous Mutation

AVAILABLE NOW

PLACE ORDER

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

Overview

Heterozygotes with JAXTag™
Also Known As: B6 db

Mice homozygous for the diabetes spontaneous mutation \( (\text{Lepr}^{db}) \) become identifiably obese around 3 to 4 weeks of age with elevations of plasma insulin beginning at 10 to 14 days and of blood sugar at four to eight weeks. Affected mice are polyphagic, polydipsic, and polyuric.
Important Note
In the spring of 2009, The Jackson Laboratory eliminated the allele misty (m) from the 000697 colony. Misty was bred out at generation 86. It is distributed as B6.D2(BKS)-Dock7tm/J (009659).

Detailed Description
Mice homozygous for the diabetes spontaneous mutation (Leprdb) become identifiably obese around 3 to 4 weeks of age. Elevations of plasma insulin begin at 10 to 14 days and of blood sugar at four to eight weeks. Affected mice are polyphagic, polydipsic, and polyuric. The course of the disease is markedly influenced by genetic background. On the C57BL/6 background there is compensatory hyperplasia of the islet B cells, and continued hyperinsulinemia throughout an 18- to 20-month life span. Wound healing is delayed and metabolic efficiency is increased. Although normal in body weight, blood glucose, and plasma insulin, heterozygotes (Leprdb/+) also have increased metabolic efficiency and can survive a prolonged fast longer than controls. Experiments involving destruction of the ventromedial nucleus of the hypothalamus suggest that Leprdb may cause a defect in the hypothalamus. Steroid sulfotransferase enzymes, aberrantly expressed in diabetic mice, interact with the Leprdb mutation as modifiers of gender differences in obesity-induced diabetes susceptibility.

For Heterozygous mice only, this strain ships with a JAXTag™ affixed. Learn more about JAXTag™.
Genotyping Protocols
Restriction Enzyme Digest: Lepr<sub>db</sub>
End Point Analysis: Lepr<sub>db</sub>
Genotyping resources and troubleshooting

Breeding Considerations

This strain is a good breeder.
When maintaining a live colony, these mice are bred as heterozygotes. Females homozygous for the mutation are infertile and males exhibit a reduced ability to mate.

Wean-aged mice may show signs of barbering that include whisker picking. Affected mice typically regrow whiskers within two weeks after weaning.

Additional Breeding and Husbandry Support

Mating System
Homozygous for Lepr<sup>db</sup> (ovarian transplant) x Heterozygous

Appearance
black, fat

Related Genotype: a<sup>a</sup> + Lepr<sub>db</sub><sup>+/+</sup> Lepr<sub>db</sub>

Citation
When using the B6 db mouse strain in a publication, please cite the originating article(s) and include JAX stock #000697 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
- AX4 (Standard)
- MP13 (Maximum)
- RB07 (Maximum)

Pricing & Availability

Available Now
Sized to accommodate orders of up to 50 or more. Ask Customer Service for details.
<table>
<thead>
<tr>
<th>Weeks</th>
<th>SEX</th>
<th>Genotype for Lepr</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>5</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>5</td>
<td>Female</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$166.12</td>
</tr>
<tr>
<td>5</td>
<td>Male</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$169.70</td>
</tr>
<tr>
<td>6</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>6</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>6</td>
<td>Female</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$166.12</td>
</tr>
<tr>
<td>6</td>
<td>Male</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$169.70</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>7</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>7</td>
<td>Female</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$166.12</td>
</tr>
<tr>
<td>7</td>
<td>Male</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$169.70</td>
</tr>
<tr>
<td>8</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>8</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>8</td>
<td>Female</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$166.12</td>
</tr>
<tr>
<td>8</td>
<td>Male</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$169.70</td>
</tr>
<tr>
<td>9</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>9</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>9</td>
<td>Female</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$166.12</td>
</tr>
<tr>
<td>9</td>
<td>Male</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$169.70</td>
</tr>
<tr>
<td>10</td>
<td>Female</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>10</td>
<td>Male</td>
<td>Heterozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$127.40</td>
</tr>
<tr>
<td>10</td>
<td>Female</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$166.12</td>
</tr>
<tr>
<td>10</td>
<td>Male</td>
<td>Homozygous for Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td>$169.70</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.
forth separately, shall govern the sale of MICE, PRODUCTS or SERVICES by JACKSON.

 RELATED STRAINS

 All

 By Allele

 By Gene

 By Collection

 All Related Strains