FVB.BKS(D)-Lepr<sup>db</sup>/ChuaJ

Stock No: 006654 | FVB-diabetes

- Congenic, Spontaneous Mutation

**PLACE ORDER**

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

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**Overview**

**Also Known As:** FVB.C57BLKS-Lepr<sup>db</sup>, FVB-Lepr<sup>db</sup>, FVB-db, FVB-diabetes

The congenic "FVB-db" strain presents an obesity/diabetes phenotype different from db on other genetic backgrounds. These mice may be useful for diabetes research, including the dissection of genetic control of beta-cell responses to hyperglycemia and insulin resistance/sensitivity.

**Donating Investigator**
GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
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<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Spontaneous</td>
<td>Lepr</td>
<td>leptin receptor</td>
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</table>

RESEARCH APPLICATIONS

- Diabetes and Obesity Research
- Endocrine Deficiency Research
- Immunology, Inflammation and Autoimmunity Research
- Internal/Organ Research
- Reproductive Biology Research
- Mouse/Human Gene Homologs
- Research Tools
- Metabolism Research

BASE PRICE

Starting at:

$2,595.00 Domestic price Cryo Recovery

Details

Detailed Description

The congenic "FVB-db" strain differs from that previously published on other genetic backgrounds in that it presents a marked obesity/diabetes phenotype intermediate between the severe uncompensated hyperglycemia observed in C57BLKS/J and DBA2/J backgrounds and the mild, compensated syndrome reported on the C57BL/6J and 129/J backgrounds. The literature reports that obese FVB-db mice of both sexes show long-term hyperglycemia primarily due to severe insulin resistance. The hyperglycemia in the fed state persists despite continued extreme hyperinsulinemia correlated with a marked pancreatic cell hypertrophy and hyperplasia. These phenotypes have been replicated in the stock at The Jackson Laboratory. However, the diabetic nephropathy
glomerulosclerosis) reported in the literature was not evident in the stock imported to JAX at the age evaluated (24 weeks).

As the phenotype varies by genetic background, these mutant mice, along with db mutants on other genetic backgrounds (see Stock No. 000642, 000697, 000699, 000700, and 000707), may be useful for diabetes research, including the dissection of genetic control of beta-cell responses to hyperglycemia and insulin resistance/sensitivity.

Genotyping Protocols
Restriction Enzyme Digest: Lepr<sup>db</sup>
Pyrosequencing: Lepr<sup>db</sup>
End Point Analysis: Lepr<sup>db</sup>
Genotyping resources and troubleshooting

Breeding Considerations
When maintaining a live colony, heterozygous mice are bred together. The donating investigator maintains these mice on a gamma-irradiated diet (PicoLab 5058, PMI Nutritional International, Richmond, Ind., USA) containing a minimum of 9% fat content by weight. This diet was chosen to mimic the diet provided by The Jackson Laboratories to their FVB/NJ inbred strain.
Additional Breeding and Husbandry Support

Citation
When using the FVB diabetes mouse strain in a publication, please cite the originating article(s) and include JAX stock #006654 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.

<table>
<thead>
<tr>
<th>Domestic</th>
<th>International</th>
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<tr>
<td>Pricing effective for USA, Canada and Mexico shipping destinations</td>
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</table>

<table>
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<tr>
<th>Cryorecovery - Domestic Pricing</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or Wild-Type for Lepr&lt;db&gt;</td>
<td>$2,595.00</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.

Related Products and Services

| Frozen Mouse Embryo | $2,595.00 per straw or vial |

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

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Questions about Terms of Use

Additional Use Restrictions Apply
Use of MICE by companies or for-profit entities requires a license prior to shipping.

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

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Related Strains

All Related Strains

BKS.Cg-Dock7m +/- Leprdb/J
Stock No: 000642
Related By: Lepr, Lepr<sup>db</sup>

B6.BKS(D)-Leprdb/J
Stock No: 000697 | B6 db
Related By: Lepr, Lepr<sup>db</sup>

B6.129(Cg)-Leprt<sup>tm2(cre)Rck/J</sup>
Stock No: 008320 | ObRb-Cre
Related By: Lepr

ELLSWORTH FACILITY OFFICIALLY OPEN AND OPERATIONAL
Shipments have begun at our new facility, allowing increased access to JAX mouse models.