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

Stock No: 006654 | FVB-diabetes

**Congenic, Spontaneous Mutation**

**REQUEST CRYORECOVERY**

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

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**

Streamson Chua, Albert Einstein College of Medicine

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lepr&lt;sup&gt;db&lt;/sup&gt;</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spontaneous</td>
<td>Lepr</td>
<td>leptin receptor</td>
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</tbody>
</table>

**VIEW GENETICS**

**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

**VIEW ALL RESEARCH APPLICATIONS**
The congeneric “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
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>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or Wild-Type for Lepr&lt;sup&gt;db&lt;/sup&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.

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#### Terms Of Use

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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
- By Collection

All Related Strains