BKS. ob/o J

Stock No: 000696 | BKS-obese

Congenic

Overview

Also Known As: BKS-obese
These mice carry a spontaneous mutation at the Lep locus on a C57BLKS/J background and are characterized by obesity, hyperphagia, hyperglycemia, glucose intolerance, and elevated plasma insulin. On the C57BLKS background homozygotes become severely diabetic with regression of islets and early death.

GENETIC OVERVIEW

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<th>Genetic Background</th>
<th>Generation</th>
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<td>000662 C57BLKS/J</td>
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Lep\textsuperscript{ob}
Mice homozygous for the obese spontaneous mutation (\(Lep^{ob}\), commonly referred to as \(ob\) or \(ob/ob\)) are first recognizable at about 4 weeks old. Homozygous mutant mice increase in weight rapidly and may reach three times the normal weight of wildtype controls. In addition to obesity, mutant mice exhibit hyperphagia; a diabetes-like syndrome of hyperglycemia, glucose intolerance, and elevated plasma insulin; subfertility; and increased hormone production from both pituitary and adrenal. They are also hypometabolic and hypothermic. The obesity is characterized by both an increased number and size of adipocytes. Although hyperphagia contributes to the obesity, homozygotes gain excess weight and deposit excess fat even when restricted to a diet sufficient for normal weight maintenance in lean mice. Hyperinsulinemia does not develop until after the increase body weight and is probably the result of it. Homozygotes do have an abnormally low threshold for stimulation of pancreatic islet insulin secretion even in very young preobese animals. As is the case with the diabetes mutant (\(Lep^{db}\)), manifestation of the diabetic syndrome is strikingly dependent on genetic background. On the C57BLKS background \(Lep^{ob}/Lep^{ob}\) homozygotes become severely diabetic with regression of islets and early death. Cloning of the \(Lep\) gene has made possible the production of recombinant leptin. Injection of this protein into \(Lep^{ob}/Lep^{ob}\) homozygotes sharply reduced body weight, decreased food intake, and increased energy expenditure.
Lep<sup>ob</sup>

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**References**

**Technical Support**

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

**Appearance**
black, fat
Related Genotype: a/a Lep<sup>ob</sup>/Lep<sup>ob</sup>

black, lean
Related Genotype: a/a Lep<sup>ob</sup>/+ or a/a ?/+  

**Citation**
When using the BKS obese mouse strain in a publication, please cite the originating article(s) and include JAX stock #000696 in your Materials and Methods section.

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.

**Domestic**

Pricing effective for USA, Canada and Mexico shipping destinations

**Cryorecovery - Domestic Pricing**
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.

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