

C57BL/6J DIOStock No: **380050** | Black 6 DIO **Inbred Strain**

Readily available in any quantity needed.

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Diets high in fat have been attributed to a host of diseases, including obesity, metabolic and inflammatory diseases. The Jackson Laboratory maintains an inventory of diet-induced obese (DIO) C57BL/6J models, so that your mice are ready when you need them. DIO C57BL/6J mice are a model of pre-diabetic type 2 diabetes and obesity with mildly elevated blood glucose and impaired glucose tolerance for your metabolic studies. Study ready diet-induced obese (DIO) C57BL/6J males and controls are placed on diet at 6 weeks of age, and are available from 7-30 weeks of age to suit your unique research needs. For projects requiring a [custom diet or a different strain](#), our project managers can work with you to get the mice you need.

[R E A D M O R E +](#)**GENETIC OVERVIEW****Genetic Background****Generation**

000664 C57BL/6J

[V I E W G E N E T I C S](#)

RESEARCH APPLICATIONS

Metabolism Research
Research Tools
Neurobiology Research
Sensorineural Research
Cardiovascular Research
Diabetes and Obesity Research

[VIEW ALL RESEARCH APPLICATIONS](#)

BASE PRICE

Starting at:

\$45.02 Domestic price for male 7-week

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[- Details](#)

Important Note

This strain is homozygous for *Cdh23^{ahl}*, the age related hearing loss 1 mutation, which on this background results in progressive hearing loss with onset after 10 months of age.

[- Detailed Description](#)

C57BL/6J mice fed a high-fat diet develop obesity, mild hyperglycemia, dyslipidemia, and impaired glucose tolerance (see detailed phenotypic data).

A naturally occurring deletion in nicotinamide nucleotide transhydrogenase (Nnt) exons 7-11 occurred in C57BL/6J sometime prior to 1984. This deletion results in the absence of the NNT protein, and is associated with impaired glucose homeostasis control and reduced insulin secretion. This mutation is not found in C57BL/6JEi, C57BL/6N, C57BL/6NJ, C57BL/6ByJ, C57BL/10J, C57L/J, or C58/J (Toye AA, et al, Diabetologia, 2005). Since C57BL/6JEi separated from C57BL/6J in 1976, the Nnt deletion arose sometime between 1976 and 1984.

[+ Development](#)

[+ Control Suggestions](#)

[+ Selected References](#)

Genetics

+ *Ahr*^{b-1}

+ *Cdh23*^{ahl}

+ *P2rx7*^{rs48804829-T}

+ *Glucos1*^{C57BL/6J}

+ *Glucos2*^{C57BL/6J}

+ *Glucos3*^{C57BL/6J}

+ *Nnt*^{C57BL/6J}

+ *Fbrwt1*^{C57BL/6J}

+ *Fbrwt2*^{C57BL/6J}

+ *Micr*ⁿ

+ *n-TRtct5*^{m1J}

+ *Nlrp12*^{C57BL/6J}

+ *Apobec3*^{Rfv3-r}

+ *Cd5*^b

+ *Aanat*^{rs216509331-A}

+ *Mx1*^{s1}

+ *Cox7a2l*^s

+ *Gabra2*^{C57BL/6J}

⊖ Disease/Phenotype

[+ Disease Terms](#)

[+ Research Areas By Phenotype](#)

[+ Mammalian Phenotype Terms by Genotype](#)

[+ Phenotype Information](#)

[+ References](#)

⊖ Technical Support

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

[Genotyping resources and troubleshooting](#)

Mating System

Sibling x Sibling

Appearance

black

Related Genotype: *a/a*

[DIO Appearance and Care](#)

Citation

When using the Black 6 DIO mouse strain in a publication, please include JAX stock #380050 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [RB12 \(Maximum\)](#)

 [MP24 \(High\)](#)

⊖ Pricing & Availability



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Readily Available

Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

LIVE MOUSE

AGE	SEX	PRICE
7 weeks	Male	\$45.02
8 weeks	Male	\$50.52
9 weeks	Male	\$55.84
10 weeks	Male	\$61.51
11 weeks	Male	\$67.52
12 weeks	Male	\$73.20
13 weeks	Male	\$79.21
14 weeks	Male	\$85.54
15 weeks	Male	\$92.30
16 weeks	Male	\$99.12
17 weeks	Male	\$105.44
18 weeks	Male	\$111.46
19 weeks	Male	\$117.68
20 weeks	Male	\$123.57
21 weeks	Male	\$129.57
22 weeks	Male	\$135.59
23 weeks	Male	\$141.53
24 weeks	Male	\$147.54
25 weeks	Male	\$153.76

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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. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

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LICENSING INFORMATION

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TOMORROW'S CURES



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