

Product Specifications: Black 6

MODEL: B6 **NOMENCLATURE:** C57BL/6NTac **COLOR:** BLACK **COAT COLOR LOCI:** a/a, B/B, C/C
IMMUNOLOGY: H2^b, Ptprc^b, Thy1^b, H2-T18^b **GENETICS:** DOES NOT CARRY THE NNT MUTATION (HUANG ET AL. 2006); CARRIES THE RD8 MUTATION OF THE CRB1 GENE (MATTAPALLIL ET AL. 2012)

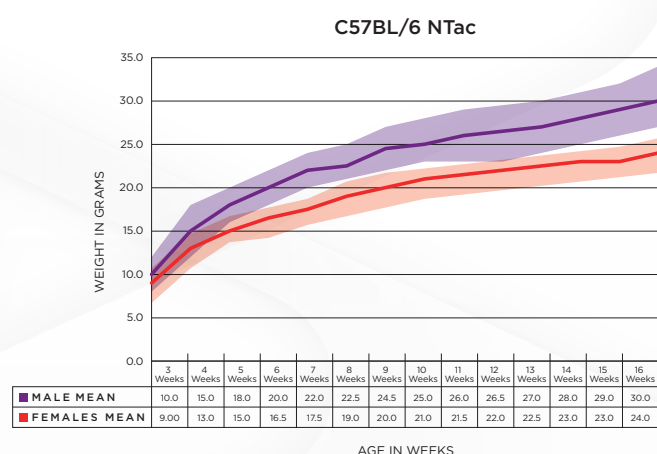


Chart represents mean +/- 2 SDs
 N = 500 from all global colonies
 Diet is NIH31-M taconic.com/quality/animal-diet
 Data collected from 2013-2015

B6 MPF	B6 Restricted Flora and Excluded Flora	B6 Germ-Free
Addiction	Behavior and learning	Immunology
Cardiovascular Disease	Immunology	Inflammation
Immunology	Inflammation	Metabolic disease
Inflammation	Model generation	Model generation
Metabolic disease	Oncology	Studies requiring custom flora
Oncology	Superovulation	
Reproductive Biology	Toxicology	
Superovulation		
Toxicology		

A Comparative Phenotypic and Genomic Analysis of C57BL/6J and C57BL/6N mouse strains provides information for researchers to choose an appropriate model for their needs based on the detailed analysis of genomic and phenotypic comparison of the C57BL/6N and C57BL/6J mouse strains and the relation of their genotypic differences to phenotypic outcomes.

UNIQUE, IMPROVED APPLICATIONS:

- Researchers report 300% improvement in embryo yield
- Among all strains, fresh sperm from C57BL/6NTac mice gave the highest fertilization rate. Of 190 two cell embryos, 63 (33.2%) developed to term after transfer to pseudopregnant recipient mice; making sperm cryopreservation and IVF a viable choice for preservation and distribution of mouse lines. (Liu et al. 2009)
- Clients report that Taconic mice develop more consistent EAE. Taconic mice will have a more uniform time of onset and maximum severity score.
- The development of insulin resistance was more robust in C57BL/6NTac mice on a lard diet when compared to C57BL/6J mice. (Garesky)

DIET INDUCED OBESITY:

- NTac DIO mice are heavier than JDIO mice at the corresponding age (from 15 to 22 weeks of age). Corresponds with higher fat mass by DEXA body composition measurements - Corresponds with heavier dissected adipose depots and total adipose
- NTac have higher cholesterol than age-matched J when DIO
- No difference in glucose tolerance between the two strains when age-matched
- NTac have higher plasma insulin levels than age-matched when DIO (pancreatic insulin content corresponds with this)
- NTac are more insulin resistant than age-matched J when DIO

REPRODUCTION

Average litter size: 6-8
 Mean # litters/female: 7
 Mean age breeder retired: 10 months
 Mean # days to litter: 22

For behavioral data, clinical chemistry and hematology please visit Taconic.com/b6 and click on the Phenotypic Data tab.

Take Your Research Further



GEMS DESIGN

Taconic Biosciences GEMs Design empowers our clients to develop research models specifically suited to the unique needs of their discovery and development studies or therapeutic programs.

- Gene Inactivation
- Gene Mutation or Replacement
- CRISPR Gene Editing
- Transgene Expression
- miRNA Expression
- Cohort Production Packages

PRECISION RESEARCH MODELS

Research organizations demand precision tools that better reflect human physiology. Taconic Biosciences leads the field delivering innovative solutions to meet these continually evolving needs. Our core competencies include the delivery of complex strategies that both integrate human genetic sequences and engraft human cells and tissues into custom mouse and rat models.

- Human Gene Replacement
- Human Cell and Tissue Engraftment

GEMS MANAGEMENT

Taconic's fully integrated GEMs Management brings innovative models from design to study-ready cohorts with unprecedented speed and transparency.

- Embryology
- Rapid Colony Expansion
- Contract Breeding
- Surgical Services
- Tissue Collection
- Genotyping and Molecular Analysis
- Microbiome and Germ-Free Research Models and Services

CHOOSE TACONIC

For more than 60 years, Taconic has anticipated the needs of the scientific community to deliver models and services that meet the diverse needs of biomedical and biopharmaceutical researchers.

Today that forward thinking and commitment to working collaboratively has resulted in a client-centric environment infused with a knowledge bank that allows you to select the optimum model for your study based on informed insight into the generation of genetically engineered mouse and rat models.

YOUR COLLABORATIVE PARTNER

As a full-service biosciences company, Taconic can help you acquire, test, develop, breed, cryopreserve, prepare, and distribute highly relevant research lines worldwide. Whether you require custom genetically engineered, cell or tissue engrafted models or traditional models, Taconic's scientists will partner with you to rapidly and efficiently deliver the highest quality models.

TALK TO A SCIENTIST

Our scientific teams are happy to meet and talk with you about the most efficient way to achieve your study goals. Working in partnership with clients the world over, our scientific teams offer expert advice that can help you speed up your research and reduce your overall costs.

TALK TO A REPRESENTATIVE

For general information, you can talk to a member of our customer service team. Our customer service team is here to help you make the right decisions and get the models you need fast. Contact us at info@taconic.com

VISIT TACONIC.COM

For more information on the entire Taconic portfolio of products and services designed to help further your research, visit [Taconic.com](https://www.taconic.com)

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