

B6.Cg-Mitf^{Mi-wh} / Mitf^{Mi} / J

Stock No: **000158**

 Congenic

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skeleton. Mice heterozygous for the microphthalmia (*Mitf^{Mi}*) mutation have less iris pigment than wildtype and often have white spotting on the belly, head, and tail. Homozygous mutant mice have small eyes and are devoid of pigment in the eyes, inner ear, and skin. Homozygotes are deaf at an early age. There is a decrease of mast cells in the spleen and gut. Most homozygotes die around weaning but some may live for several months. There is a deficiency of secondary bone resorption (osteopetrosis) and the incisors fail to erupt. Immunological defects include decreased macrophage chemotac...

READ MORE +

GENETIC OVERVIEW

Genetic Background **Generation**

000664 C57BL/6J

Mitf^{Mi}

Alele Type	Gene Symbol	Gene Name
Other	<i>Mitf</i>	melanogenesis associated transcription factor

Mitf^{Mi-wh}

Alele Type	Gene Symbol	Gene Name
Spontaneous	<i>Mitf</i>	melanogenesis associated transcription factor

VIEW GENETICS

RESEARCH APPLICATIONS

- Dermatology Research
- Developmental Biology Research
- Endocrine Deficiency Research

Immunology, Inflammation and Autoimmunity Research
Neurobiology Research
Sensorineural Research
Mouse/Human Gene Homologs
Hematological Research

VIEW ALL RESEARCH APPLICATION

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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Details

Detailed Description

Mutations at the *Mitf* locus affect eye size, pigmentation, and the capacity for secondary bone resorption. Mice homozygous for the white allele (*Mitf*^{M-wh}) display an overall absence of pigment cells with the exception of the retina which expresses a few giving the eye a small amount of pigment. Homozygotes white mutant mice show slight microphthalmia but normal skeleton. Mice heterozygous for the microphthalmia (*Mitf*^M) mutation have less iris pigment than wildtype and often have white spotting on the belly, head, and tail. Homozygous mutant mice have small eyes and are devoid of pigment in the eyes, inner ear, and skin. Homozygotes are deaf at an early age. There is a decrease of mast cells in the spleen and gut. Most homozygotes die around weaning but some may live for several months. There is a deficiency of secondary bone resorption (osteopetrosis) and the incisors fail to erupt. Immunological defects include decreased macrophage chemotactic responses, impaired proliferative responses to B cell and T cell mitogens, diminished responses *in vitro* to T-dependent and T-independent antigens and reduced NK cell activity. Compound heterozygotes (*Mitf*^{M-wh}/*Mitf*^M) closely resemble white homozygotes (*Mitf*^{M-wh}/*Mitf*^{M-wh}) but their eyes are slightly more pigmented and not as small.

Development

Genetics

+ *Mitf*^{Mi}

+ *Mitf*^{Mi-wh}

⊖ Disease/Phenotype

+ Disease Terms

+ Research Areas By Phenotype

+ Mammalian Phenotype Terms by Genotype

+ 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](#)

Citation

When using the B6.Cg-*Mitf*^{M-wh}/*Mitf*^M/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #000158 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



Cryo
Recovery

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CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT

DESCRIPTION

PRICE

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LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

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