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Stock No: 009100 | Mop3⁻

Congenic, Targeted Mutation



AVAILABLE

PLACE ORDER

Live mice available in varying quantities. Ask Customer Service for details.

Overview

Also Known As: Mop3⁻

The *Arntl* knock-out strain may be useful in studies of circadian rhythm, arthritis, ankylosis, and glucose homeostasis.

Donating Investigator

Dr. Joseph S. Takahashi, Univ Texas Southwestern Medical Ctr

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

N14+pN1

(2019-11-01 00:00:00)

Arntl^{tm1Bra}

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	<i>Arntl</i>	aryl hydrocarbon receptor nuclear translocator-like

V I E W G E N E T I C S

RESEARCH APPLICATIONS

Neurobiology Research
Mouse/Human Gene Homologs
Metabolism Research
Internal/Organ Research

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

BASE PRICE

Starting at:

\$278.00 Domestic price for female

356.51 Domestic price for breeder pair

V I E W P R I C E L I S T

⊖ Details

⊖ Detailed Description

These targeted mutation mice exhibit a loss of both behavioral and molecular circadian rhythms. When placed in constant darkness, the mice undergo an immediate loss of circadian rhythmicity. Locomotor activity is impaired in both light and constant dark cycles.

Reduced total activity is seen as the mice age. They display a progressive noninflammatory arthropathy. Little pathology is seen prior to 11 weeks of age, but virtually all homozygotes develop joint ankylosis due to flowing ossification of ligaments and tendons by 35 weeks of age. Bone density and articular cartilage are unaffected.

Inactivation of the gene suppresses diurnal variation in glucose and triglycerides. Gluconeogenesis is abolished in homozygotes, but the counterregulatory response of corticosterone and glucagon to insulin-induced hypoglycemia is retained.

Homozygotes are viable but not fertile and have an increased mortality rate after 26 weeks of age. A truncated, non-functional protein is produced. This strain may be useful in studies of circadian rhythm, arthritis, ankylosis, and glucose homeostasis.

+ Development

[+ Control Suggestions](#)

[+ Selected References](#)

[- Genetics](#)

[+ *Arntl*^{tm1Bra}](#)

[- Disease/Phenotype](#)

[+ Disease Terms](#)

[+ Research Areas By Genotype](#)

[+ Mammalian Phenotype Terms by Genotype](#)

[+ References](#)

[- Technical Support](#)

C H A T O  F L I N E

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

Standard PCR:[Arntl^{tm1Bra}](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintained as a live colony, heterozygotes may be bred. It is recommended that females be disturbed as little as possible because they are prone to killing their litters. Homozygotes are viable, but both males and females are reportedly sterile.

[Additional Breeding and Husbandry Support](#)

Mating System

+/+ sibling x Heterozygote

Heterozygous females are poor mothers.

Citation

When using the *Mop5*^{-/-} mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #009100 in your

[Materials and Methods section](#)

[Facility Barrier Level Descriptions](#)

 [AX18 \(Maximum\)](#)

[- Pricing & Availability](#)



Live mice available in varying quantities. Ask Customer Service for details.

Available

Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

Live Mouse

AGE	SEX	GENOTYPE	PRICE
Approx 4-8 weeks	Female	Heterozygous for Arntl ^{tm1Bra}	\$278.00
	Male	Heterozygous for Arntl ^{tm1Bra}	\$278.00
Approx 4-8 weeks	Female	Wild-type for Arntl ^{tm1Bra}	\$78.51
	Male	Wild-type for Arntl ^{tm1Bra}	\$78.51

Breeder Pair

SEX	GENOTYPE	PRICE
Female	Heterozygous for Arntl ^{tm1Bra}	\$356.51
Male	Wild-type for Arntl ^{tm1Bra}	
Female	Wild-type for Arntl ^{tm1Bra}	\$356.51
Male	Heterozygous for Arntl ^{tm1Bra}	

Related Products and Services

Frozen Mouse Embryo	B6.129-Arntl ^{tm1Bra} /J Frozen Embryo	\$2595.00
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