

B6.129P2(Cg)-Pitx2^{tm1.1Dmm}/J

Stock No: **018054**

 Congenic, Targeted Mutation

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.

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Donating Investigator

Donna M Martin, University of Michigan Medical School

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GENETIC OVERVIEW

Genetic Background

Generation

Pitx2^{tm1.1Dmm}

Alele Type

Targeted (Reporter,
Null/Knockout)

Gene Symbol

Pitx2

Gene Name

paired-like homeodomain transcription factor 2

VIEW GENETICS

RESEARCH APPLICATIONS

Internal/Organ Research

Neurobiology Research

Developmental Biology Research

Research Tools

Cell Biology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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

Details

Detailed Description

In this mutant strain an *IRES Tau-lacZ* cassette replaces exon 4 of the paired-like homeodomain transcription factor 2 (*Pitx2*) gene, abolishing expression of all three PITX2 isoforms. PITX2 is a transcription factor expressed in the developing mammillary and retromammillary regions of the hypothalamus. PITX2 is involved in memory processing by regulating neural axonal migration. Heterozygous *Pitx2*^{flz/+} mice are viable and fertile, while homozygous *Pitx2*^{flz/flz} mice exhibit embryonic lethality. *Pitx2*^{flz/+} embryos show *lacZ* staining in the eye, pituitary, teeth, heart, craniofacial regions, and neural tube. The brains of heterozygous embryos show *lacZ* staining the hypothalamus and midbrain. *Pitx2*^{flz/flz} embryos exhibit defects of the heart, abdominal viscera, and distal turning. They have improperly bundled and disorganized axonal fibers in the primary mammillary tract which are still able to project caudally.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Pitx2^{tm1.1Dmm}

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

Probe:[Generic Cre Probe](#)

Separated PCR:[Pitx2alternate1](#)

Separated MCA:[Pitx2alternate1 MCA](#)

Standard PCR:[Generic Cre Melt Curve Analysis](#)

Standard PCR:[Generic LacZ Melt Curve Analysis](#)

Probe:[Generic LacZ Probe](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, mice may be bred as heterozygotes. Homozygous $Pitx2^{flz/flz}$ mice exhibit embryonic lethality.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6.129P2(Cg)- $Pitx2^{tm1.1Dmm}/J$ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #018054 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



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Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wild-type for Pitx2<tm1.1Dmm>	\$2,854.50

PAYMENT TERMS AND CONDITIONS

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

THE JACKSON LABORATORY'S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet 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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Q U E S T I O N S A B O U T T E R M S O F U S E

ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a no-fee JAX Leap License prior to shipping.](#)

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

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By Allele

By Gene

By Collection



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