

B6;129S6-*Pdc*^{tm1Vya}/J

Stock No: **025987**

 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

Vadim Y Arshavsky, Duke University Eye Center

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GENETIC OVERVIEW

Genetic Background

Generation

Pdc^{tm1Vya}

Allele Type

Targeted (Null/Knockout)

Gene Symbol

Pdc

Gene Name

phosducin

VIEW GENETICS

RESEARCH APPLICATIONS

Cell Biology Research

Neurobiology Research

Research Tools

Sensorineural 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

Phosducin is an abundant photoreceptor-specific protein. Mice homozygous for the phosducin knockout allele (Pd^{-/-} or Pdc^{-/-}) are viable and fertile with normal lifespan and no gross abnormalities. See breeding performance below.

Phosducin protein is completely absent in Pd^{-/-} retinas. The rods and cones of Pd^{-/-} mice have reduced levels of the photoreceptor-specific G protein transducin (20-30% and 40% reduction, respectively), and also exhibit impaired light-dependent transducin translocation. In addition, both rod- and cone-driven pathways behave as if persistently desensitized/illuminated, with cone-driven pathways affected most significantly. Specifically, homozygous mice have reduced bipolar cell response sensitivity in the dark and a lesser degree of response desensitization compared to wildtype.

The donating investigator reports the breeding performance of homozygous matings as averaging four pups per litter. Therefore, they suggest homozygous males be placed into breeding pairs at six weeks of age (and they have successful breeding for at least eight months); the age when homozygous females are bred is not as critical.

While other published phosducin knockout mice are reported to have stress-mediated hypertension (despite normal cardiac function and vascular reactivity) and elevated catecholamine turnover in the peripheral sympathetic system, such phenotypes have not been characterized for these Pd^{-/-} mice (Stock No. 025987) to date (September 2014).

Development

Control Suggestions

Selected References

Genetics

+ Pdc^{tm1Vya}

– 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

Standard PCR:[Pdc-Alternate 1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous mice may be bred together.

The donating investigator reports the breeding performance of homozygous matings as averaging four pups per litter. Therefore, they suggest homozygous males be placed into breeding pairs at six weeks of age (and they have successful breeding for at least eight months); the age when homozygous females are bred is not as critical.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6;129S6-*Pdc*^{tm1Vya}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #025987 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



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

Domestic International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for Pdc<tm1Vya>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6;129S6-Pdc<tm1Vya>/J Frozen Embryo	\$2595.00
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- All
- By Allele
- By Gene
- By Collection



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