

B6.129-Dio1^{tm1Vag} /J

Stock No: **018984** | D1KO

 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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regulation.

Donating Investigator

Valerie Anne Galton, Dartmouth Medical School

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GENETIC OVERVIEW

Genetic Background

Generation

Dio1^{tm1Vag}

Alele Type

Gene Symbol

Gene Name

Targeted (Null/Knockout)

Dio1

deiodinase, iodothyronine, type I

VIEW GENETICS

RESEARCH APPLICATIONS

Endocrine Deficiency Research

Metabolism 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

A neo cassette replaces exon 2 of the deiodinase, iodothyronine, type I (*Dio1*) gene, including the TGA selenocysteine codon, abolishing gene function in these D1KO mice. D1 is a selenoenzyme expressed in the liver, kidney, thyroid, and pituitary where it generates triiodothyronine (T₃) thyroid hormone from thyroxine (T₄) for export to the plasma. D1 is also a scavenger enzyme, playing a role in iodide conservation in peripheral tissues and the thyroid. Homozygotes are viable and fertile. D1KO mice exhibit increased fecal excretion of iodothyronines and increased levels of T₄ and reverse (r)T₃ in serum.

Development

Control Suggestions

Selected References

Genetics

Dio1^{tm1Vag}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

- 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

Separated PCR:[Dio2](#)

Separated PCR:[Dio2](#)

Separated PCR:[Dio1alternate1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

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

[Additional Breeding and Husbandry Support](#)

Citation

When using the D1KO mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #018984 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

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 Dio1<tm1Vag>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

B6.129-Dio1<tm1Vag>/J

\$2595.00

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

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

Related Strains

All

By Allele

By Gene

By Collection



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