



B 6 . 1 2 9CSa4v-i n^{tm1P9} / J

Stock No: 023823 | Cavin-3 KO

Congenic, Targeted Mutation



CRYO RECOVERY

P L A C E O R D E R

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

Overview

Also Known As: Cavin-3 KO

Cavin-3 knock-out mice exhibit cachexia and increased glycolytic metabolism. They are suitable for use in applications related to the study of ERK and Akt signaling.

Donating Investigator

Peter Michaely, UT Southwestern Medical Center

[READ MORE +](#)

GENETIC OVERVIEW

Genetic Background Generation

Cavin3^{tm1Pemi}

Allele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	<i>Cavin3</i>	caveolae associated 3

[VIEW GENETICS](#)

RESEARCH APPLICATIONS

Internal/Organ Research
Cell Biology Research
Research Tools
Metabolism Research

[VIEW ALL RESEARCH APPLICATIONS](#)

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

[VIEW PRICE LIST](#)

Details

Detailed Description

Protein kinase C, delta binding protein, or Cavin-3, forms a complex with cavin-1 (polymerase I and transcript release factor) and caveolin to anchor caveolae to the plasma membrane at the actin cytoskeleton via myosin 1c protein. Cavin-3 is involved in ERK and AKT signaling and circadian clock regulation. These mice carry a targeted mutation in which exon 1 and most of exon 2 is replaced by a floxed NEO cassette. Homozygous mice are viable and fertile, although with a shortened lifespan. At 12 months of age homozygotes have an approximately 80% survival rate, dropping to an approximately 40% survival rate at 24 months of age. No gene product (protein) is detected by Western blot analysis of tissue (lung) or of MEFs isolated from homozygous animals. Homozygotes exhibit cachexia (40% reduction in body weight and severe lipodystrophy), hepatic steatosis, and increased glycolytic metabolism. MEFs from homozygous animals proliferate faster than MEFs from wildtype controls, exhibit Warburg metabolism, are

more resistant to TNF-alpha and the MAPK/ERK Kinase (MEK) inhibitor, PD98059, and are more sensitive to the PI3K inhibitor, LY294002. During backcrossing, the Y chromosome may not have been fixed to the C57BL/6J genetic background.

+ Development

+ Control Suggestions

+ Selected References

- Genetics

+ *Cavin3*^{tm1Pemi}

- 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: [Prkcdbp](#)^{tm1Pemi}

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, these mice can be bred as homozygotes. Homozygotes have a shortened lifespan when compared to wildtype controls (approximately 40% survival rate at 24 months of age).

[Additional Breeding and Husbandry Support](#)

Citation

When using the *Cavin3* KO mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #023823 in your Materials and Methods section.

[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	GENOTYPE	PRICE
Cryo Recovery	Heterozygous for Prkcdbp<tm1Pemi>	\$2,854.50

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a [Dedicated Supply](#) for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

Related Products and Services

Frozen Mouse Embryo	B6.129S4-Cavin3<tm1Pemi>/J	\$2595.00
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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.

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Phone: 207-288-6470

Email: TechTran@jax.org

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