

**B6;129S2-Rapgef3<sup>tm1Geno</sup>/J**

Stock No: **018389**

 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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receptor for cyclic AMP.

Donating Investigator

Younging Lu, Louisiana State University HSC

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## GENETIC OVERVIEW

Genetic Background

Generation

*Rapgef3<sup>tm1Geno</sup>*

**Alele Type**

Targeted (Conditional ready (e.g. floxed), No functional change)

**Gene Symbol**

*Rapgef3*

**Gene Name**

Rap guanine nucleotide exchange factor (GEF) 3

VIEW GENETICS

## RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

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

RAPGEF3 (or EPAC1) is a rap guanine nucleotide exchange factor that functions as an intracellular receptor for cyclic AMP. Epac1 mRNA exhibits widespread expression. These mutant mice possess *loxP* sites flanking exons 3 to 6 of the (*Rapgef3*) gene. Mice that are homozygous for this allele are viable and fertile. When bred to mice that express Cre recombinase, the resulting offspring will have exons 3-6 deleted in the cre-expressing tissues. When a global *Rapgef3* knockout is combined with *Rapgef4*<sup>GI(CS1450264)</sup> (Epac2 KO) (Stock No. [018390](#)), double homozygous knockout mice exhibit impaired long term potentiation (LTP), deficits in spatial learning, memory deficits, and abnormal social interactions.

#### Development

#### Control Suggestions

#### Selected References

### Genetics

#### *Rapgef3*<sup>tm1</sup>Geno

### 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:[Rapgef3alternate1](#)

Separated MCA:[Rapgef3alternate1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

While maintaining a live colony, these mice are bred as homozygotes.

[Additional Breeding and Husbandry Support](#)

Citation

When using the B6;129S2-*Rapgef3*<sup>tm1Geno</sup>/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #018389 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
<a href="#">Cryo Recovery</a>	Heterozygous for <i>Rapgef3</i> <tm1Geno>	\$2,854.50

## RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo

B6;129S2-Rapgef3<tm1Geno>/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.

### Terms Of Use

## TERMS OF USE

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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](mailto:TechTran@jax.org)

### Related Strains

All

By Allele

By Gene

By Collection



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*Leading the search for*

# TOMORROW'S CURES



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