

**B6;129S-Rap1a<sup>tm1Morz</sup> Rap1b<sup>tm1Morz</sup> /J**

Stock No: **021066**

 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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amygdala.

Donating Investigator

Alexei Morozov, National Institutes of Health

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## GENETIC OVERVIEW

Genetic Background

Generation

### *Rap1a<sup>tm1Morz</sup>*

**Alele Type**

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

**Gene Symbol**

*Rap1a*

**Gene Name**

RAS-related protein 1a

### *Rap1b<sup>tm1Morz</sup>*

**Alele Type**

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

**Gene Symbol**

*Rap1b*

**Gene Name**

RAS related protein 1b

VIEW GENETICS

RESEARCH APPLICATIONS

[VIEW ALL RESEARCH APPLICATIONS](#)

## BASE PRICE

Starting at:

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\$2,854.50 Domestic price Cryo Recovery

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[VIEW PRICE LIST](#)

### Details

#### Detailed Description

These *Rap1* double floxed mice possess *loxP* sites flanking exons 2-3 of the RAP-related protein-1a (*Rap1a*) gene and *loxP* sites flanking exon 1 of the RAP-related protein-1b (*Rap1b*) gene. RAP1 is a small GTPase that has been found in both presynaptic and postsynaptic terminals. It has been implicated in regulation of AMPA receptor (AMPA) trafficking, long-term potentiation (LTP) of synaptic transmission in the hippocampus, and spatial learning. Mice that are homozygous for these alleles are viable and fertile. When these mutant mice are bred to mice that express Cre recombinase, resulting offspring will have *Rap1a* exons 2-3 and *Rap1b* exon 1 deleted in *cre*-expressing tissues.

For example, when crossed to a strain expressing Cre recombinase in the forebrain, double *Rap1* KO mice exhibit impaired fear learning due to alterations in cortical input to the lateral amygdala.

#### Development

#### Control Suggestions

#### Selected References

### Genetics

#### *Rap1a*<sup>tm1Morz</sup>

#### *Rap1b*<sup>tm1Morz</sup>

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## – Disease/Phenotype

[+ Disease Terms](#)

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[+ Research Areas By Phenotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ References](#)

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## – 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:[Rap1b](#)

Standard PCR:[Rap1a](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

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

[Additional Breeding and Husbandry Support](#)

### Citation

When using the B6;129S-*Rap1a*<sup>tm1Morz</sup> *Rap1b*<sup>tm1Morz</sup>/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #021066 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](#)*

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## – 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 Rap1a<tm1Morz>, Heterozygous for Rap1b<tm1Morz	\$2,854.50

### RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6;129S-Rap1a<tm1Morz> Rap1b<tm1Morz>/J	\$2595.00
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## LICENSING INFORMATION

Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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- By Allele
- By Gene
- By Collection



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