

**B6;129S7-*Epas1*<sup>tm1Rus</sup>/J**

Stock No: **003266** | EPAS1 KO

 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

Dr. David Russell, Univ of Texas Southwest Med Ctr Dallas

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## GENETIC OVERVIEW

Genetic Background

Generation

*Epas1*<sup>tm1Rus</sup>

**Alele Type**

Targeted (Reporter,  
Null/Knockout)

**Gene Symbol**

*Epas1*

**Gene Name**

endothelial PAS domain protein 1

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Cell Biology Research

Developmental Biology Research

Cardiovascular Research

Internal/Organ Research

Cancer 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

Mice homozygous for the *Epas1*<sup>tm1Rus</sup> targeted mutation develop normally until embryonic day 11.5. Beginning at embryonic day 12.5 the ratio of homozygous embryos begins to decline and by day 16.5 there are no viable mutant embryos. Overall morphological development, including the circulatory system, is normal. Of particular interest however, is a pronounced bradycardia in homozygous mutant mice. Catecholamine levels in homozygous mutant mice are also significantly lower than wildtype controls. Administration of the catecholamine precursor DOPS to pregnant females rescues approximately 40% of mutant embryos. Embryos that survive to birth appear runted, fail to nurse, and die within 24 hours of birth. These results suggest a pivotal role of EPAS1 in catecholamine homeostasis. Heterozygous mice from this strain contain a modified *lacZ* gene in the targeting construct. This characteristic makes this strain useful as a marker for endothelial cells.

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

#### *Epas1*<sup>tm1Rus</sup>

### 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:[Epas1](#)

[Genotyping resources and troubleshooting](#)

#### Breeding Considerations

The strain is maintained by heterozygote matings. Homozygotes die mid-gestation.

[Additional Breeding and Husbandry Support](#)

#### Citation

When using the EPAS1 KO mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #003266 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 or Wild-type for Epas1<tm1Rus>	\$2,854.50

RELATED PRODUCTS AND SERVICES		
<a href="#">Frozen Mouse Embryo</a>	B6;129S7-Epas1<tm1Rus>/J	\$2595.00

## PAYMENT TERMS AND CONDITIONS

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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

### ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a license prior to shipping.](#)

### LICENSING INFORMATION

Phone: 207-288-6470

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

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All

By Allele

By Gene

By Collection



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