

FVB.129S6-Gt(ROSA)26Sor<sup>tm2(HIF1A/luc)Kael</sup> / J

Stock No: 006206 | ODD-Luc

 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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These "ODD-Luc" bioluminescent reporter mice may be useful in researching transcriptional regulation of hypoxia-inducible genes, cancer, ischemia, cardiovascular, myocardial infarction, stroke, pharmacokinetics, or other studies where imaging/reporting the development of tissue hypoxia and the action of small molecule inhibitors of HIF prolyl hydroxylase activity are appropriate.

### Donating Investigator

William G. Kaelin, Dana Farber Cancer Institute

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## GENETIC OVERVIEW

Genetic Background

Generation

*Gt(ROSA)26Sor<sup>tm2(HIF1A/luc)Kael</sup>*

#### Alele Type

Targeted (Reporter, Inserted expressed sequence, Humanized sequence)

#### Gene Symbol

*Gt(ROSA)26Sor*

#### Gene Name

gene trap ROSA 26, Philippe Soriano

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Internal/Organ Research

Cardiovascular 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 heterozygous for this "ODD-luc" knock-in are viable and fertile with no gross phenotypic or behavioral abnormalities. These mice have the C-terminal portion of the hypoxia-inducible factor 1 alpha (*HIF1A*) oxygen-dependent degradation domain (ODD) fused to the firefly luciferase (*Luc*) gene. This region of the ODD also contains a proline residue (amino acid 564) that, when hydroxylated, will serve as a binding site for von Hippel-Lindau tumor suppressor protein (pVHL). Under normal oxygen concentrations, prolyl hydroxylation by egg-laying-defective nine (EGLN) proteins leads to pVHL-dependent polyubiquitylation and proteasomal degradation (thus, little or no luciferase fluorescence). Under hypoxia, proline hydroxylation is impaired and ubiquitination is attenuated, resulting in stabilization of the fusion protein and high levels of luciferase fluorescence in the hypoxic tissue(s). These "ODD-Luc" bioluminescent reporter mice may be useful in researching transcriptional regulation of hypoxia-inducible genes, cancer, ischemia, cardiovascular, myocardial infarction, stroke, pharmacokinetics, or other studies where imaging/reporting the development of tissue hypoxia and the action of small molecule inhibitors of HIF prolyl hydroxylase activity are appropriate.

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

**+** *Gt(ROSA)26Sor<sup>tm2(HIF1A/luc)Kael</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

Separated PCR:[Gt\(ROSA\)26Sor](#)

Probe:[Gt\(ROSA\)26Sor Probe](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, these mice may be bred as heterozygotes or homozygotes.

[Additional Breeding and Husbandry Support](#)

### Mating System

Homozygote x Homozygote

### Citation

When using the ODD-Luc mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #006206 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



Typically mice are recovered in 10-14 weeks. Contact Customer Service to

Cryo  
Recovery

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 Gt(ROSA)26Sor<tm1(HIF1A/luc)Kael>	\$2,854.50

### RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	FVB.129S6-Gt(ROSA)26Sor<tm2(HIF1A/luc)Kael>/J Frozen Embryo	\$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.

## 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

[General Terms and Conditions](#)

QUESTIONS ABOUT TERMS OF USE

### 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

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All

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By Gene

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