

## FVB-Tg(GFAP-luc,GAPDH-rluc)172.9Mes/J

Stock No: 009638

 Coisogenic, Transgenic

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

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protein) promoter and Renilla luciferase under the control of the 0.5kb human *GAPDH* (glyceraldehyde-3-phosphate dehydrogenase) promoter. GFAP-fLuc transgene expression is highest in brain, with lower levels detected in heart and no detectable expression in kidney, muscle, lung and liver. The firefly luciferase protein co-localizes with GFAP in astrocytes after kainic acid induced injury. GAPDH-RLuc transgene expression is highest in brain and heart, with lower levels detected in kidney, muscle, lung and liver. Interindividual variability in firefly luciferase expression is reduced with normalization of the GFAP-fLuc signal to the GAPDH-RLuc signal. This mutant mouse strain may be useful in studies of Alexander disease, astrocyte biology, and gliosis.

### Donating Investigator

Dr. Albee Messing, University of Wisconsin-Madison

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## GENETIC OVERVIEW

Genetic Background

Generation

### Tg(GFAP-luc,GAPDH-rluc)172.9Mes

#### Allele Type

Transgenic (Reporter)

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Neurobiology Research

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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### Details

#### Detailed Description

These Dual-glo transgenic mice express both firefly luciferase (*luc*) under the control of the human *GFAP* (glial fibrillary acidic protein) promoter and Renilla luciferase under the control of the 0.5kb human *GAPDH* (glyceraldehyde-3-phosphate dehydrogenase) promoter. *GFAP*-fLuc transgene expression is highest in brain, with lower levels detected in heart and no detectable expression in kidney, muscle, lung and liver. The firefly luciferase protein co-localizes with *GFAP* in astrocytes after kainic acid induced injury. *GAPDH*-RLuc transgene expression is highest in brain and heart, with lower levels detected in kidney, muscle, lung and liver. Interindividual variability in firefly luciferase expression is reduced with normalization of the *GFAP*-fLuc signal to the *GAPDH*-RLuc signal. Retinal expression of luciferase is increased due to photoreceptor degeneration for mice on the FVB background and the homozygous presence of the retinal degeneration 1, *Pde6b<sup>rd1</sup>* (*rd*) mutation. Firefly luciferase and *GFAP* expression increases in response to chemical (Kainic acid) induced injury. Mice that are hemizygous for the targeted mutation are viable, normal in size and do not display any gross physical or behavioral abnormalities. This mutant mouse strain may be useful in studies of Alexander disease, astrocyte biology, and gliosis.

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

#### Tg(GFAP-luc,GAPDH-rluc)172.9Mes

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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:[Tg\(GAPDH-luc\)](#)

Standard PCR:[Tg\(GAPDH-luc\)](#)

Standard PCR:[Tg \(GFAP-luc\)](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, these mice can be bred as hemizygotes.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the FVB-Tg(GFAP-luc,GAPDH-rluc)172.9Mes/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #009638 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	Hemizygous or non carrier for Tg(GFAP-luc,GAPDH-rluc)172.9Mes	\$2,854.50

### RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB-Tg(GFAP-luc GAPDH-rluc)172.9Mes/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

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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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