

## STOCK Tg(TCF/Lef1-lacZ)34Efu/J

Stock No: 004623 | TOPGAL

 Transgenic

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

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binding factor 1/transcription factor 3 mediated signaling pathway and activated Beta-catenin. Beta-galactosidase activity is displayed during early embryonic development in a subset of pluripotent embryonic basal cells of the epithelium and dermis of developing hair follicles, This strain represents an effective tool for generating mutants that would be useful in studies of the Wnt signaling pathway.

### Donating Investigator

Elaine Fuchs, The Rockefeller University

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## GENETIC OVERVIEW

Genetic Background      Generation

### Tg(TCF/Lef1-lacZ)34Efu

#### Alele Type

Transgenic (Reporter)

### *Gnat2*<sup>cpfl3</sup>

#### Alele Type

Spontaneous

#### Gene Symbol

*Gnat2*

#### Gene Name

guanine nucleotide binding protein, alpha transducing 2

VIEW GENETICS

## RESEARCH APPLICATIONS

Cell Biology Research  
Research Tools  
Developmental Biology Research  
Sensorineural Research  
Dermatology Research

[VIEW ALL RESEARCH APPLICATIONS](#)

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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### [- Details](#)

#### Important Note

This strain may be homozygous for *Gnat2*<sup>cpfl3</sup>, cone photoreceptor function loss 3, which affects bright light (photopic) vision.

#### [- Detailed Description](#)

These TOPGAL transgenic mice are a reporter strain that express Beta-galactosidase in the presence of the lymphoid enhancer binding factor 1/transcription factor 3 (LEF/TCF) mediated signaling pathway and activated Beta-catenin. The transgene contains the *lacZ* gene under the control of a regulatory sequence consisting of three consensus LEF/TCF-binding motifs upstream of a minimal *c-fos* promoter. Transgenic mice display TOPGAL activity (Beta-galactosidase activity) during early embryonic development in a subset of pluripotent embryonic basal cells of the epithelium and dermis of developing hair follicles, but not during the next stage of hair follicle development; formation of hair germs. TOPGAL transgene activity reappears in hair follicles at E16.5 and TOPGAL expression is strongly upregulated in the postnatal hair shaft precursor cells in both whisker and body hair anagen follicles (active periods of hair growth). TOPGAL expression ceases during catagen (regression and shortening) and telogen (rest) periods of the postnatal hair growth cycle. Mice homozygous for the transgenic insert are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. This strain represents an effective tool for generating mutants that would be useful in studies of the Wnt signaling pathway.

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#### [+ Development](#)

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#### [+ Expression Data](#)

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#### [+ Control Suggestions](#)

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#### [+ Selected References](#)

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## – Genetics

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+ [Tg\(TCF/Lef1-lacZ\)34Efu](#)

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+ [Gnat2<sup>cpfl3</sup>](#)

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## – Disease/Phenotype

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+ [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:[Generic LacZ](#)

QPCR:[Generic LacZ QPCR Alternate 1](#)

Standard PCR:[Tg\(TCF/Lef1-lacZ\)34Efu](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, hemizygous mice may be bred together or to wildtype (noncarrier) mice from the colony. The coat color expected from breeding is Albino.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the TOPGAL mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004623 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 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>	Hemizygous or Non carrier for Tg(Fos-lacZ) <sup>34Efu</sup> , 1 pair minimum	\$2,854.50

#### RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	STOCK Tg(TCF/Lef1-lacZ) <sup>34Efu</sup> /J Frozen Embryos	\$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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## 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)

### Related Strains

All

By Allele

By Gene

By Collection







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