

**B6.129-Gt(ROSA)26Sor<sup>tm1(TMPRSS2/ERG)Key</sup> /J**

Stock No: **024512** | Rosa26<sup>ERG/ERG</sup>

◆ 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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STOP sequence. It is useful in studying ETS-mediated prostate oncogenesis.

### Donating Investigator

Charles L. Sawyers, Memorial Sloan-Kettering Cancer Center

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## GENETIC OVERVIEW

Genetic Background

Generation

*Gt(ROSA)26Sor<sup>tm1(TMPRSS2/ERG)Key</sup>*

**Alele Type**

**Gene Symbol**

**Gene Name**

Targeted (Conditional ready (e.g. floxed), Inserted expressed sequence, Humanized sequence)

*Gt(ROSA)26Sor*

gene trap ROSA 26, Philippe Soriano

VIEW GENETICS

## RESEARCH APPLICATIONS

Developmental Biology Research

Research Tools

Reproductive Biology 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

Translocation of ETS transcription factors *ERG* (avian erythroblastosis virus E-26 (v-ets) oncogene related), *ETV1*, *ETV4*, *EV5*, and *FLI1* occur in half of all prostate cancers. *TMPRSS2* (transmembrane protease, serine 2)-*ERG* translocation is the most common molecular alteration.

These *Rosa26<sup>ERG</sup>* mice conditionally express the *TMPRSS2-ERG* fusion transcription factor as well as a nuclear-localized EGFP from the *Gt(ROSA26)Sor* gene after cre-mediated excision of a loxP-flanked Stop sequence. When crossed into probasin (*Pbsn*)-cre, *ERG* is specifically and strongly expressed in the prostate, causing a low penetrance of prostate hyperplasia. When bred with *Pbsn*-cre and *Pten* floxed mice (to knock out PTEN expression in the prostate), *ERG* expression causes accelerated, highly penetrant invasive prostate cancer in the progeny. Triple mutant mice show invasive adenocarcinoma characterized by small irregular glandular structures composed of malignant cells with large, pleiomorphic nuclei and pale cytoplasm developed adjacent to prostatic intraepithelial neoplasia by 8 weeks of age. By 6 months, approximately 80% of these mice contain regions of adenocarcinoma with enlarged, hardened prostates.

EGFP expression can be detected directly or through immunohistochemistry.

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

### Genetics

#### *Gt(ROSA)26Sor<sup>tm1(TMPRSS2/ERG)</sup>Key*

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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: [Gt\(ROSA\)26Sor-Alternate 1](#)  
[Genotyping resources and troubleshooting](#)

### Breeding Considerations

Heterozygotes and homozygotes are viable and fertile.

### [Additional Breeding and Husbandry Support](#)

#### Mating System

Heterozygote x Heterozygote

### Citation

When using the *Rosa26<sup>ERG/ERG</sup>* mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #024512 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
<a href="#">Cryo Recovery</a>	Heterozygous for Gt(ROSA)26Sor<tm1(TMPRSS2/ERG)Key>	\$2,854.50

### RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	B6.129-Gt(ROSA)26Sor<tm1(TMPRSS2/ERG)Key>/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

## ☰ Related Strains

- All
- By Allele
- By Gene
- By Collection




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