

B6;129-Gt(ROSA)26Sor^{tm1(RAC1*)Jkis}/J

Stock No: **017962** | Rosa26-LSL-Rac1b

 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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applications associated with the initiation and progression of tumorigenesis.

Donating Investigator

Joseph L Kissil, The Scripps Research Institute, Scripps Florida

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GENETIC OVERVIEW

Genetic Background

Generation

Gt(ROSA)26Sor^{tm1(RAC1)Jkis}*

Alele Type

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

Gene Symbol

Gt(ROSA)26Sor

Gene Name

gene trap ROSA 26, Philippe Soriano

VIEW GENETICS

RESEARCH APPLICATIONS

Cancer Research
Research Tools

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

The *Rosa26-LSL-Rac1b* allele contains a *loxP*-flanked neo-STOP cassette upstream of human RAS-related C3 botulinum substrate 1 (*Rac1*) isoform b cDNA inserted into the *Gt(ROSA)26Sor* locus. The Rac proteins regulate signaling pathways that control the shape, motility and growth of cells. Mice homozygous for the *Rosa26-LSL-Rac1b* allele are viable and fertile. Rac1b is a GTP-bound, active Rac1 splice variant which has been found to be upregulated in colon and breast cancer cells. In the absence of *Cre*, RAC1 expression is prevented by the floxed STOP sequence. After removal of the *loxP*-flanked STOP cassette via *cre*-mediated recombination, RAC1 expression is evident in the *cre*-expressing tissues of the offspring. For example, when these mice receive an intranasal instillation of a *cre*-expressing adenovirus, the removal of the STOP cassette in the lung results in RAC1 expression. These inoculated mice show no overt phenotype. When bred to B6.129S4-*Kras*^{tm2Tyj}/J mice (Stock No. 008179), expressing a *cre*-inducible oncogenic *K-ras* allele, intranasal instillation of a *cre*-expressing adenovirus results in the initiation and progression of lung tumors with an increase in the tumor volume to lung volume ratio above that of the oncogenic *K-ras* allele alone.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Gt(ROSA)26Sor^{tm1(RAC1*)}Jk^{is}

⊖ Disease/Phenotype

[+ Disease Terms](#)

[+ Research Areas By Phenotype](#)

[+ Mammalian Phenotype Terms by Genotype](#)

[+ References](#)

⊖ 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

Probe: [Gt\(rosa\)26sor Probe](#)

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

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

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

Citation

When using the Rosa26-LSL-Rac1b mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #017962 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



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DomesticInternational

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

| SERVICE/PRODUCT | DESCRIPTION | PRICE |
|-----------------|--|------------|
| Cryo Recovery | Heterozygous or wildtype for Gt(ROSA)26Sor<tm1(RAC1*)Jkis> | \$2,854.50 |

RELATED PRODUCTS AND SERVICES

| | | |
|---------------------|--|-----------|
| Frozen Mouse Embryo | B6;129-Gt(ROSA)26Sor<tm1(RAC1*)Jkis>/J | \$2595.00 |
|---------------------|--|-----------|

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Email: TechTran@jax.org

Related Strains

- All
- By Allele
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- By Collection



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