



129S / ~~Kras~~^{trn4Tyj} / J

Stock No: 008180

Coisogenic, Targeted Mutation



CRYO RECOVERY

PLACE ORDER

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

Overview

This strain carries a point mutation (G12D) in the Kras (v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog) gene whose expression is blocked by the presence of a *loxP*-flanked stop codon. Homozygotes die *in utero*. Cre-mediated recombination can excise the stop codon and permit the oncogenic protein to be expressed. Intranasal infection with an adenovirus encoding Cre results in a very high frequency of lung tumors and permits controlled timing of tumor initiation and tumor multiplicity. This strain may be useful in studies of cancer and development.

Donating Investigator

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GENETIC OVERVIEW

Genetic Background

Generation

Kras^{tm4Tyj}

Allele Type

Gene Symbol

Gene Name

Targeted (Conditional ready
(e.g. floxed), No functional
change)

Kras

Kirsten rat sarcoma viral oncogene homolog

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

Cancer Research

Developmental Biology Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

This strain carries a point mutation (G12D) whose expression is blocked by the presence of a *loxP*-flanked stop codon. Homozygotes die *in utero*. Cre-mediated recombination can excise the stop codon and permit the oncogenic protein to be expressed. Intranasal infection with an adenovirus encoding Cre results in a very high frequency of lung tumors and permits controlled timing of tumor initiation and tumor multiplicity. This strain may be useful in studies of cancer and development.

When bred to a strain expressing Cre recombinase under the control of a tetracycline-responsive promoter element and a strain expressing a tetracycline-controlled activator protein in lung epithelial cells (see Stock No. [006234](#) and [006235](#) respectively), this mutant mouse strain may be useful in studies of lung development.

When bred to a strain expressing Cre recombinase in the male germ line (see Stock No. [003328](#), [007252](#) for example), this mutant mouse strain may be useful in studies of embryonic development.

When bred to a strain expressing interferon inducible Cre recombinase (see Stock No. [003556](#), [005673](#) for example), this mutant mouse strain may be useful in studies of Ras and myeloproliferative disease.

When bred to a strain expressing Cre recombinase in mammary gland, skin, and other secretory glands (see Stock No. [003553](#) for example), this mutant mouse strain may be useful in studies of epithelial hyperplasias.

When bred to a strain expressing Cre recombinase in epiblast derived tissues (see Stock No. [003755](#) for example), this mutant mouse strain may be useful in studies of Ras and embryonic development.

When bred to a strain expressing tamoxifen inducible Cre recombinase (see Stock No. [008463](#) for example), this mutant mouse strain may be useful in studies of tumorigenesis in the colon.

When bred to a strain expressing tamoxifen-inducible Cre recombinase in melanocytes (see Stock No. [012328](#) for example), this mutant mouse strain may be useful in studies of melanomagenesis.

When bred to a strain expressing Cre recombinase in astrocytes (see Stock No. [012887](#) for example), this mutant mouse strain may be useful in studies of neurofibroma development.

+ Development

+ Selected References

- Genetics

+ *Kras^{tm4Tyj}*

- Disease/Phenotype

+ Disease Terms

+ Research Areas By Genotype

+ Mammalian Phenotype Terms by Genotype

+ References

- Technical Support

C H A T O  F L I N E

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: *Kras^{tm4Tyj}*

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintained as a live colony, heterozygotes may be bred. Homozygotes are embryonic lethal.

[Additional Breeding and Husbandry Support](#)

Citation

When using the 129S/Sv-Kras^{tm4Tyj}/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008180 in your Materials and Methods section.

[Facility Barrier Level Descriptions](#)
Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, G200

➔ Pricing & Availability



Cryo Recovery

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	GENOTYPE	PRICE
Cryo Recovery	Heterozygous or wildtype for Kras<tm4Tyj>	\$2,854.50

We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. Please check genotypes which will be recovered. While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. Animals are typically ready to ship in 11-14 weeks. If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a [Dedicated Supply](#) for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

Related Products and Services

Frozen Mouse Embryo	129S/Sv-Kras<tm4Tyj>/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.

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Licensing Information

Phone: 207-288-6470

Email: TechTran@jax.org

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By Allele

By Gene

By Collection

All Related Strains



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