

B6.129-Kras^{tm3Bbd}/J
Stock No: **027010** | Kras^{F5FG12V^{geo}}

◆ 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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adenocarcinomas.

Donating Investigator

Dr. Mariano Barbacid, Centro Nacional de Investigaciones Oncol

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GENETIC OVERVIEW

Genetic Background Generation

Kras^{tm3Bbd}

Alele Type

Targeted (Conditional ready (e.g. floxed), Null/Knockout, Humanized sequence)

Gene Symbol

Kras

Gene Name

Kirsten rat sarcoma viral oncogene homolog

VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research

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

$Kras^{FSFG12V}$ mice contain a 5' *fl*-flanked STOP-neo cassette, followed by a G12V mutation in the *Kras* (v-Ki-ras2 Kirsten rat sarcoma viral oncogene homolog) gene. *Ras* genes are small GTPases that act downstream of receptors and nonreceptor tyrosine protein kinases in multiple pathways to transfer information to the nucleus. *K-ras* has been found to be primarily activated in human tumors in pancreatic, colon, and lung cancer. The unrecombined $Kras^{FSFG12V}$ allele is null. Hence, homozygous $Kras^{FSFG12V}$ embryos die at midgestation as the $Kras^{-/-}$ mice. When bred to mice expressing FLP Recombinase, removal of the *fl*-flanked STOP cassette allows expression of $Kras^{G12V}$, commonly found in human tumors.

Tracheal infection of these $Kras^{FSFG12V}$ mice with Adeno-FLP particles induces lung adenomas and adenocarcinomas with an incidence and latency similar to that observed in the $Kras^{LSLG12Vgeo}$ mice (Stock No. [026924](#)) infected with Adeno-Cre particles.

Breeding to bitransgenic *Elas*-tTA/tetO-FLP mice that express FLP recombinase under the control of the elastase promoter in a tet-off system allows selective expression of the $Kras^{G12V}$ oncoprotein in cells of pancreatic acinar lineage. Untreated mice develop PanIN lesions and pancreatic ductal adenocarcinomas with an incidence and latency similar to that observed with $Kras^{LSLG12Vgeo}$ mice carrying the *Elas*-tTA/tetO-Cre transgenes.

Crossing $Kras^{FSFG12V}$ mice with strains carrying floxed alleles of targets with potential therapeutic value, allows the temporal and spatial separation of tumor development and target ablation. This strategy makes it possible to determine the therapeutic properties of the target in a well established tumors.

Development

Expression Data

Control Suggestions

Genetics

$Kras^{tm3Bbd}$

– 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

Sanger sequencing:[Kras G12V SEQ](#)

Standard PCR:[Kras](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred to wildtype mice from the colony. Homozygous embryos die at midgestation.

[Additional Breeding and Husbandry Support](#)

Mating System

Wild-type x Heterozygote

Heterozygote x Wild-type

Citation

When using the $Kras^{FSFG12V_{geo}}$ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #027010 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



Cryo
Recovery

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Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous or wildtype for Kras<tm3Bbd>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.129-Kras<tm3Bbd>/J	\$2595.00
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Q U E S T I O N S A B O U T T E R M S O F U S E

LICENSING INFORMATION

☰ Related Strains

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- By Allele
- By Gene
- By Collection




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