



# C . 1 2F9/ ~~Flt1~~<sup>Jrt</sup>/ B a n n J

Stock No: 022541

Congenic, Targeted Mutation



CRYO RECOVERY

P L A C E O R D E R

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

## Overview

This knock-in/knock-out reporter strain expresses beta-galactosidase in endothelial cells from the endogenous mouse *Flt1* locus.

### Donating Investigator

Brian Annex, University of Virginia Health System

R E A D M O R E +

## GENETIC OVERVIEW

Genetic Background

Generation

*Flt1<sup>tm1Jrt</sup>*

Allele Type

Gene Symbol

Gene Name

Targeted (Reporter,  
Null/Knockout)

*Flt1*

FMS-like tyrosine kinase 1

V I E W G E N E T I C S

## RESEARCH APPLICATIONS

Research Tools

Developmental Biology Research

Cardiovascular Research

V I E W A L L R E S E A R C H A P P L I C A T I O N S

## 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 *Flt1* (FMS-like tyrosine kinase 1) gene encodes a receptor tyrosine kinase that binds to the VEGFR-A, VEGFR-B and placental growth factor proteins and is critical to angiogenesis and vasculogenesis. These knock-in/knock-out mice carry a mutation of the *Flt1* gene in which a lacZ-NEO cassette replaces sequence encoding the signal peptide. Although heterozygous mice are viable and fertile, homozygous mice have an embryonic lethal phenotype, failing to develop past E8.5. This strain is difficult to breed with less than expected inheritance of the mutation; the Donating Investigator breeds female heterozygotes to wildtype males.

No gene product (mRNA) is detected by RT-PCR analysis of homozygous embryos, aged E8.5. Approximately 50% of gene product (mRNA) is detected by RT-PCR and real-time RT-PCR analysis of heart tissue from heterozygotes. Homozygous embryos exhibit disorganized blood islands and developing vascular structures, with increased endothelial cell proliferation and vascular density. Heterozygotes also display increased endothelial cell proliferation and vascular density during embryonic development. Beta-galactosidase staining pattern of heterozygotes mimics the endogenous *Flt1* expression pattern. Adult heterozygotes exhibit reduced ischemic preconditioning-mediated cardioprotection compared to wildtype controls.

*In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. This is the case for the strain above. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.*

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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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[+ \*Flt1<sup>tm1Jrt</sup>\*](#)

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[- Disease/Phenotype](#)

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[+ Disease Terms](#)

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[+ Research Areas By Genotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ References](#)

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[- Technical Support](#)

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## Genotyping Protocols

Standard PCR:[Flt1<sup>tm1Jrt</sup>](#)

[Genotyping resources and troubleshooting](#)

## Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred together, to wildtype siblings, or to BALB/cJ inbred mice (Stock No. [000651](#)). Homozygous mice have an embryonic lethal phenotype. This strain is difficult to breed with less than expected inheritance of the mutation. The Donating Investigator breeds female heterozygotes to wildtype males.

[Additional Breeding and Husbandry Support](#)

## Citation

When using the C.129-Flt1<sup>tm1Jrt</sup>/BannJ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #022541 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 Flt1<tm1Jrt>	\$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	C.129-Flt1<tm1Jrt>/BannJ	\$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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[General Terms and Conditions](#)

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Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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## ☰ Related Strains

All

By Allele

By Gene

By Collection

All Related Strains



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