

**B6;129-*Ubb*<sup>tm1Rrk</sup>/J**

Stock No: **008678**

 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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meiosis, neuron development and survival, neuropathogenic disease, and adult-onset obesity linked to selective hypothalamic neurodegeneration.

### Donating Investigator

Ron R Kopito, Stanford University

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## GENETIC OVERVIEW

Genetic Background

Generation

*Ubb*<sup>tm1Rrk</sup>

**Alele Type**

Targeted (Reporter, Null/Knockout)

**Gene Symbol**

*Ubb*

**Gene Name**

ubiquitin B

VIEW GENETICS

## RESEARCH APPLICATIONS

Research Tools

Endocrine Deficiency Research

Reproductive Biology Research

Developmental Biology Research

Neurobiology Research

Cell Biology Research

Cardiovascular Research

Apoptosis Research

## BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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### Details

#### Detailed Description

Mice heterozygous for the targeted allele are viable and fertile. This polyubiquitin B (Ubb) mutation is characterized by a GFP-puro<sup>f</sup> fusion protein "knock-in" allele that also abolishes endogenous gene function. Direct visualization of GFP fluorescence is observed in ovaries, testes, hypothalamus (arcuate nucleus) and cerebral cortex. Homozygotes have no Ubb mRNA observed in the various tissues tested, and are viable but sterile due to failure of germ cells to progress through meiotic prophase I and hypogonadism. Homozygotes also exhibit a complex metabolic phenotype initially characterized by dysfunction of neurons within the central nervous system accompanied by retarded perinatal growth that progresses to adult-onset obesity linked to selective hypothalamic neurodegeneration. Homozygotes also develop adult-onset hyperleptinemia (but normal levels of circulating glucose and insulin) as a consequence of increased fat content. These Ubb-mutant mice may be useful in studying gametogenesis, meiosis, neuron development and survival, neuropathogenic disease, and impaired energy balance/metabolism-associated obesity.

*NOTE: If bred to mice that express Cre recombinase, the resulting offspring may have the loxP-flanked GFP-puro<sup>f</sup> cassette deleted in the cre-expressing tissue(s). While this would still result in Ubb-deficient offspring, it would remove the fluorescent protein gene.*

*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. 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.*

#### Development

#### Expression Data

#### Control Suggestions

#### Selected References

## Genetics

[+ \*Ubb<sup>tm1Rrk</sup>\*](#)

## 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

Separated PCR:[Ubb SEP PCR](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred together (or to wildtype siblings). Homozygous mice are viable but sterile.

*NOTE: If bred to mice that express Cre recombinase, the resulting offspring may have the loxP-flanked GFP-puro<sup>r</sup> cassette deleted in the cre-expressing tissue(s). While this would still result in Ubb-deficient offspring, it would remove the fluorescent protein applications.*

[Additional Breeding and Husbandry Support](#)

### Citation

When using the B6;129-*Ubb<sup>tm1Rrk</sup>*/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #008678 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

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 or Wild-Type for Ubb<tm1Rrk>	\$2,854.50

#### RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	B6;129-Ubb<tm1Rrk>/J	\$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

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## ADDITIONAL USE RESTRICTIONS APPLY

Use of MICE by companies or for-profit entities requires a license prior to shipping.

## LICENSING INFORMATION

Phone: 207-288-6470

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

### Related Strains

All

By Allele

By Gene

By Collection




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