

B6.129X1-Igfbp1^{tm1Taub}/J

Stock No: 005248 | IGFBP-1-

 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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after hepatectomy or toxic damage.

Donating Investigator

Kim Olthoff, University of Pennsylvania

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GENETIC OVERVIEW

Genetic Background

Generation

Igfbp1^{tm1Taub}

Alele Type

Gene Symbol

Gene Name

Targeted (Null/Knockout)

Igfbp1

insulin-like growth factor binding protein 1

VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research

Cell Biology Research

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

Mice that are homozygous for the targeted mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. No gene product (mRNA or protein) is detected by Northern or Western blot analysis of post partial hepatectomy liver tissue. Immediately following hepatectomy, homozygotes exhibit increased liver injury (increased necrosis and elevated liver enzymes) and delayed and diminished DNA synthesis. Induction of cyclin A and cyclin B1 expression in hepatocytes from posthepatectomy livers is delayed and decreased, cyclin E expression is decreased, induction of CCAAT enhancer binding protein (C/EBP) beta expression is absent, and activation of mitogen-activated protein kinase/extracellular signal-regulated kinase (MAPK/ERK) is diminished. Elevated levels of activated matrix metalloproteinase (Mmp9) and active TGF-beta1 result with Fas agonist (Jo-2 mAb) challenge. Within 3 hours of Fas agonist treatment hepatocytes exhibit increased apoptosis and caspase activation, followed by hemorrhage and parenchymal degradation. Mutant mice suffer more rapid and severe hepatocellular injury due to acute carbon tetrachloride, CCl4, treatment, and DNA synthesis is delayed and diminished following treatment. This mutant mouse strain may be useful in studies of liver regeneration, acute viral hepatitis and mitogenic signaling pathways.

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. As this allele was originally published on a mixed genetic background, 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

Control Suggestions

Selected References

Genetics

Igfbp1^{tm1}Taub

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

Standard PCR:[Igfbp1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

This strain is maintained as a homozygote.

[Additional Breeding and Husbandry Support](#)

Citation

When using the IGFBP-1- mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #005248 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.

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for Igfbp1<tm1Taub>	\$2,854.50

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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

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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

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[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

Related Strains

All

By Allele

By Gene

By Collection



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