The Jackson Laboratory

C3H/HeOuJ-*Gusb* $^{mps-2J}$/BrkJ

Stock No: **003525** | mucopolysaccharidosis VII 2 Jackson

Spontaneous Mutation

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

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storage disease and elevated levels of the lysosomal enzymes alpha-galactosidase and beta-hexosaminidase.

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GENETIC OVERVIEW

Genetic Background **Generation**

Gusb^{mps-2J}

Allele Type	Gene Symbol	Gene Name
Spontaneous	*Gusb*	glucuronidase, beta

VIEW GENETICS

RESEARCH APPLICATIONS

Developmental Biology Research
Metabolism Research
Mouse/Human Gene Homologs

VIEW ALL RESEARCH APPLICATIO

BASE PRICE

Starting at:

$2,854.50 Domestic price Cryo Recovery

VIEW PRICE LIST

Details

Detailed Description

Mice homozygous for the *Gus*$^{mps\text{-}2J}$ allele exhibit a phenotype similar to *Gus*^{mps} homozygotes including skeletal deformities, lysosomal storage disease and elevated levels of the lysosomal enzymes alpha-galactosidase and beta-hexosaminidase (Gwynn et al., 1998). Like the *Gus*^{mps} heterozygote, *Gus*$^{mps\text{-}2J}$ heterozygotes have a 26-85% reduction in beta-glucuronidase activity. depending on tissue type (Gwynn *et al*., 1998, Birkenmeier *et al*., 1989). Homozygotes of both alleles have beta-glucuronidase activity levels at 1% of the control level. Unlike the *Gus*^{mps} homozygote, *Gus*$^{mps\text{-}2J}$ homozygotes live longer, are fertile and can raise litters to weaning age (Gwynn *et al*., 1998). In addition to a difference in the nature of the mutations between these two alleles, it is also likely that the phenotypic differences are the result of strain background. C3H/HeOuJ mice carry a different set of alleles at the *Gus* complex than C57BL/6J mice. Beta-glucuronidase activity in C3H/HeOuJ mice is 10-38% that of C57BL/6J mice (Gwynn *et al*., 1998). The *Gus* complex alleles determine the rate of enzyme synthesis and may modulate the expression of the beta-glucuronidase deficiency. This strain is a model for the human lysomal storage disease, mucopolysaccharidosis type VII.

Development

Control Suggestions

Selected References

Genetics

Gusb$^{mps\text{-}2J}$

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
Standard PCR:Gusb
Genotyping resources and troubleshooting

Appearance
black
Related Genotype: *a/a*

Citation
When using the mucopolysaccharidosis VII 2 Jackson mouse strain in a publication, please cite the originating article(s) and include JAX stock #003525 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.

DomestiqInternatiq

Pricing effective for USA, Canada and Mexico shipping destinations

CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
Cryo Recovery	Heterozygous for usb<mps-2J>	$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	C3H/HeOuJ-Gusb<mps-2J>/BrkJ	$2595.00

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

General Terms and Conditions

QUESTIONS ABOUT TERMS OF USE

LICENSING INFORMATION

Phone: 207-288-6470
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Related Strains

All

By Allele

By Gene

By Collection