

129-*Comt*^{tm2(COMT)Xzho} /J

Stock No: 027993 | Met/Met

Coisogenic, 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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contain a methionine mutation, Val158Met, commonly associated with schizophrenia and other psychiatric disorders.

Donating Investigator

Xianjin Zhou, University of California San Diego

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GENETIC OVERVIEW

Genetic Background

Generation

Comt^{tm2(COMT)Xzho}

Alele Type

Targeted (Null/Knockout, Inserted expressed sequence)

Gene Symbol

Comt

Gene Name

catechol-O-methyltransferase

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology 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

Human COMT Met mice contain human catechol-O-methyltransferase (*Comt*) gene replacing the endogenous coding region. They also contain a missense mutation in exon 3, corresponding with human codon 158, resulting in the Val158Met mutation commonly associated with schizophrenia and other psychiatric disorders. Membrane bound COMT is highly expressed in both prefrontal cortex and hippocampus and is a key enzyme in catecholamine clearance from the synapse. COMT helps maintain appropriate levels of neurotransmitters, such as such as dopamine and norepinephrine, in prefrontal cortex. Mutations and increased frequency of this gene are associated with schizophrenia, anxiety, mood disorders, obsessive-compulsive disorder, and attention deficit disorder. Homozygous *Human COMT Met* mice are viable and fertile. The donating investigator reports a lack of phenotype on this 129 genetic background (July 2018). We may modify the strain description if necessary as any results become available.

Of note, this allele is also available on a C57BL/6J congenic background as Stock No. [032383](#). The congenic B6J strain show behavioral phenotypes consistent with those seen in patients with schizophrenia and other psychiatric disorders.

Companion strains, containing containing a WT human COMT gene, are available on a congenic B6J background (Stock No. [032382](#)) and a 129 coisogenic background (Stock No. [027990](#)).

Development

Expression Data

Control Suggestions

Selected References

Genetics

[+](#) *Comt*^{tm2(COMT)Xzho}

⊖ 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:[Comt-SEQ-Alternate 1](#)

Separated PCR:[Comt](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

When maintaining a live colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

Citation

When using the Met/Met mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #027993 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



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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 for Comt<tm2(COMT)Xzho>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	129-Comt<tm2(COMT)Xzho>/J Frozen Embryo	\$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

[General Terms and Conditions](#)

QUESTIONS ABOUT TERMS OF USE

ADDITIONAL USE RESTRICTIONS APPLY

[Use of MICE by companies or for-profit entities requires a license prior to shipping.](#)

LICENSING INFORMATION

☰ Related Strains

- All
- By Allele
- By Gene
- By Collection




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