

FVB/N-Tg(MECP2*R306C/EGFP)1Hzo/J

Stock No: 026044

 Coisogenic, Transgenic

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

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Donating Investigator

Huda Zoghbi, Baylor College of Medicine

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GENETIC OVERVIEW

Genetic Background

Generation

Tg(MECP2*R306C/EGFP)1Hzo

Alele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research

Research Tools

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

MECP2 (methyl CpG binding protein 2) is an X-linked transcriptional repressor that binds to methylated CpG dinucleotides. Loss of function causes the progressive neurological disorder Rett Syndrome (RTT). Conversely, duplication or triplication of the chromosomal region causes an equally wide-ranging progressive neurological disorder, *MECP2* duplication syndrome, whose features overlap somewhat with RTT.

This transgenic strain expresses full-length human *MECP2* carrying an R306C mutation in the transcriptional repression domain (TRD) fused to EGFP. Immunofluorescent methods using anti-*MECP2* and anti-GFP antibodies reveal expression patterns throughout the brain that parallel those of the endogenous gene. Transgene expression levels are similar to those of the endogenous X-linked mouse gene.

Hemizygous mice demonstrate no overt phenotype (normal lifespan, body weight, and brain size) on their own, but when put on a *Mecp2*^{fl/y} background (see Stock No. [005439](#)), they model Rett syndrome with a milder phenotype than the *Mecp2* null mice. Compound mutant mice have a shortened lifespan with 50% lethality at 18 weeks (as compared to 11 weeks in *Mecp2* null mice) and have smaller brains, motor dysfunction, learning disabilities, increased anxiety, and hypoactivity.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(*MECP2**R306C/EGFP)1Hzo

⊖ 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: [Tg\(MECP2/EGFP\)1Hzo](#)

Sanger sequencing: [Tg\(MECP2*R306C/EGFP\)1Hzo-Alternate 1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Hemizygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

Mating System

Noncarrier x Hemizygote

Hemizygote x Noncarrier

Citation

When using the FVB/N-Tg(MECP2*R306C/EGFP)1Hzo/J mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #026044 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	Hemizygous or non carrier for Tg(MECP2*R306C/EGFP)1Hzo	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	FVB/N-Tg(MECP2*R306C/EGFP)1Hzo/J Frozen Embryo	\$2595.00
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PAYMENT TERMS AND CONDITIONS

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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

TERMS OF USE

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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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