

B6.Cg-Tg(GFAP-APOE_i2)14Hol Apoe^{tm1Unc}/J

Stock No: 004632 | GFAP-apoE2 line14

 Congenic, Targeted Mutation, Transgenic

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

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and GFAP expression patterns in the brain.

Donating Investigator

Dr. David M. Holtzman, Washington University

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GENETIC OVERVIEW

Genetic Background

Generation

Apoe^{tm1Unc}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

Apoe

Gene Name

apolipoprotein E

Tg(GFAP-APOE_i2)14Hol

Alele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

VIEW GENETICS

RESEARCH APPLICATIONS

Cardiovascular Research

Mouse/Human Gene Homologs

Neurobiology Research

BASE PRICE

Starting at:

\$2,854.50 Domestic price Cryo Recovery

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Details

Detailed Description

These transgenic mice express the human apolipoprotein E2 isoform (APOE2) under the direction of the human glial fibrillary acidic protein (*GFAP*) promoter and do not express endogenous mouse apolipoprotein E (APOE). The transgenic isoform expression pattern follows the endogenous mouse APOE and GFAP expression patterns in the brain. Human APOE2 is immunodetectable in glia and neuropil in developing and adult mutant mice. Cultured astrocytes from transgenic mice secrete APOE2 in lipoproteins that are similar in size to high-density (HDL) plasma lipoproteins. Detergent-soluble APOE2 protein levels in hemizygous mice forebrain tissue and in adult human cortex tissue are similar. Mice that are hemizygous or homozygous for the transgenic insert and homozygous for the targeted allele are viable, normal in size and do not display any gross physical or behavioral abnormalities. This mutant mouse strain represents a model that may be useful in studies examining the function of APOE2 in the central nervous system and how APOE2 may contribute to the pathology of Alzheimer's disease.

According to the donating investigator, mice that are hemizygous for the transgene and homozygous for the null mutation show dyslipidemia similar to non-transgenic *Apoe*-null mutant mice (B6.129P2-*Apoe*/J - Stock # 002052) in peripheral blood. Although some transgene-derived APOE protein does make it to the periphery, it is not enough to lower peripheral cholesterol significantly.

Development

Expression Data

Control Suggestions

Selected References

Genetics

[+ Apoe^{tm1Unc}](#)

[+ Tg\(GFAP-APOE_i2\)14Hol](#)

[- 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:[Apoe](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

The resulting transgenic founder animals were bred to B6.129P2-Apoe^{tm1Unc} (Stock #: 2052) for ten generations.

[Additional Breeding and Husbandry Support](#)

Citation

When using the GFAP-apoE2 line14 mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004632 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

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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 for Tg(GFAP-APOE_i2)14Hol and heterozygous for Apoe<tm1Unc>	\$2,854.50

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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.

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LICENSING INFORMATION

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Email: TechTran@jax.org

Related Strains

All

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By Collection



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