

B6.129S-Abca4^{tm1Ght}/J

Stock No: **026800** | Abcr

 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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Donating Investigator

Gabriel H. Travis, UCLA School of Medicine

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GENETIC OVERVIEW

Genetic Background

Generation

Abca4^{tm1Ght}

Alele Type

Targeted (Null/Knockout)

Gene Symbol

Abca4

Gene Name

ATP-binding cassette, sub-family A (ABC1), member 4

VIEW GENETICS

RESEARCH APPLICATIONS

Sensorineural Research

Developmental Biology Research

Research Tools

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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

Abcr⁻ mice have a neo cassette replacing the promoter and exon 1 of the ATP-binding cassette, sub-family A (ABC1), member 4 (*Abca4*) gene, abolishing gene expression. ABCR (ABCA4) is a retina-specific protein localized in outer segment disk edges of rod photoreceptors. Mutations in ABCR have been linked to the onset of macular degenerations such as Stargardt macular dystrophy (STGD), recessive retinitis pigmentosa, recessive cone-rod dystrophy, and age-related macular degeneration (AMD). ABCR acts as a transmembrane flippase transporter for phosphatidylethanolamine (N-Ret-PE) which moves N-Ret-PE from inside of the photoreceptor disks out to the cytoplasmic surface. The retinal pigment epithelium (RPE) of the *Abcr*⁻ mice accumulates of bis-retinoid-lipofuscin material, which is further amplified after supplementation with Vitamin A. The major bis-retinoid-lipofuscin pigment in the RPE of *Abcr*^{-/-} mice and STGD patients is A2E. The knockout mice exhibit slow-photoreceptor degeneration and delayed dark adaptation following a photobleach. *Abcr* homozygous null mice are viable and fertile.

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. It should be noted that the phenotype of these C57BL/6J-congenic mice could vary from that originally described on a 129S genetic background. We may modify the strain description if necessary as published results become available.

When crossed to mice homozygous for the *Rdh8*^{*tm1Kpal*} allele (Stock No. [017630](#)), the resulting double mutant homozygous mice (Stock No. [030503](#)) exhibit retinal dystrophy, light-dependant progressive retinal degeneration and are a model for age-related macular degeneration.

Development

Control Suggestions

Selected References

Genetics

Abca4^{*tm1Ght*}

– 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:[Abca4 Alternate3](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Mutant mice were bred to C57BL/6J inbred mice (Stock No. [000664](#)) for several generations using a marker-assisted, speed congenic approach to establish this congenic strain. When maintaining the live congenic colony, homozygous mice may be bred together.

[Additional Breeding and Husbandry Support](#)

Citation

When using the $Abcr^{-}$ mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #026800 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 or wildtype for Abca4<tm1Ght>	\$2,854.50

RELATED PRODUCTS AND SERVICES

Frozen Mouse Embryo	B6.129S-Abca4<tm1Ght>/J	\$2595.00
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