



B 6 C 3 F ~~aa~~FA1E y a^{ba1}/ J

Stock No: 003301 | branchio otorenal syndrome

F1 Or F2 Hybrid



CRYORECOVERY

P L A C E O R D E R

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

Overview

Also Known As: branchio otorenal syndrome

These mice carry a spontaneous mutation at the *Eya1* locus characterized by deafness, circling, and head-bobbing. Morphological abnormalities of the inner ear and dysmorphic or missing kidneys parallel that of the human Branchio-Oto-Renal Syndrome.

R E A D M O R E +

GENETIC OVERVIEW

Genetic Background

Generation

A

Allele Type	Gene Symbol	Gene Name
Spontaneous	<i>a</i>	nonagouti

Eya1^{bor}

Allele Type	Gene Symbol	Gene Name
Spontaneous	<i>Eya1</i>	EYA transcriptional coactivator and phosphatase 1

V I E W G E N E T I C S

RESEARCH APPLICATIONS

Developmental Biology Research
Mouse/Human Gene Homologs
Internal/Organ Research
Neurobiology Research
Sensorineural Research

V I E W A L L R E S E A R C H A P P L I C A T I O N S

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

The human Branchio-Oto-Renal Syndrome is generally a dominant disorder with incomplete penetrance and variable expressivity resulting from null mutations in the *EYA1* gene. The mouse *Eya1^{bor}* allele is primarily a recessive hypomorphic mutation. Nevertheless, homozygous mice with this hypomorphic allele offer a good model for Branchio-Oto-Renal Syndrome. The phenotype of *Eya1^{bor}/Eya1^{bor}* mice parallels that of the human Branchio-Oto-Renal Syndrome and both are thought to result from reduced gene dosage. The *Eya1^{bor}/Eya1^{bor}* mice are deaf and their behavior is marked by circling and head-bobbing. They lack all but the most basal one-quarter of the cochlea, and the organ of Corti is completely absent. They have foreshortened, narrower semicircular canals and in some the common crus is incomplete. Their kidneys are absent or dysmorphic with greater severity generally on the left side. Fewer homozygotes than expected are born. During mapping crosses using CAST/Ei and C3H/HeJ, it was found that genetic background impacts both the kidney and inner ear phenotypes, and modifier genes in humans also may impact the severity of Branchio-Oto-Renal-Syndrome. (Johnson et al., 1999)

Mice heterozygous for a targeted mutation of *Eya1* display a phenotype with hearing loss, renal defects (at low penetrance), and developmental disorders, paralleling the phenotype of mice homozygous for *Eya1^{bor}*. TUNEL analysis on developing ears of the *Eya1* targeted mutant mice revealed an increase in apoptotic cells in the otic vesicle at embryonic day 10.5. (Xu et al., 1999.)

+ Development

- Genetics

+ A

+ *Eya1^{bor}*

- Disease/Phenotype

+ Disease Terms

+ Research Areas By Genotype

+ Mammalian Phenotype Terms by Genotype

+ References

- Technical Support

C H A T O  F L I N E

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:*Eya1^{bor}*

[Genotyping resources and troubleshooting](#)

Citation

When using the branching otoregal syndrome mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #003301 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.

Cryorecovery - Domestic Pricing

SERVICE	GENOTYPE	PRICE
cryo Recovery	Heterozygous or Wild-type for Eya1<bor>	\$2,854.50

A molecular assay to genotype this strain is not available. We will fulfill your order by providing at least two untested males and two untested females (two pairs). The total number, sex, and genotypes will vary, although typically 8 or more mice are provided. Untested animals typically are available to ship between 10 and 14 weeks from the date of your order. If the first recovery attempt is unsuccessful, a second recovery will be done, extending the overall recovery time to approximately 25 weeks. Progeny testing may be required – If recovered animals do not display a phenotype, progeny testing will be required. This testing involves breeding the recovered animals and assessing the phenotype of the offspring in order to identify animals carrying the mutation of interest. Please note that identified pairs may not reflect the mating scheme utilized by The Jackson Laboratory prior to cryopreservation of the strain. Mating schemes are sometimes modified for successful cryopreservation. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a [Dedicated Supply](#) for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

Related Products and Services

Frozen Mouse Embryo	B6C3FeF1 a/A-Eya1<bor>/J Frozen Embryos	\$2595.00
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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.

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