

**B6.129S6-Ece2<sup>tm1Ywa</sup>/J**

Stock No: **030639** | ECE-2

 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

William C Wetsel, Duke University Medical Center

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## GENETIC OVERVIEW

Genetic Background

Generation

*Ece2<sup>tm1Ywa</sup>*

**Alele Type**

Targeted (Null/Knockout)

**Gene Symbol**

*Ece2*

**Gene Name**

endothelin converting enzyme 2

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

Mutations in *ECE2* (endothelin converting enzyme 2) have been reported in Alzheimer's disease patients.

These mice carry a targeted knock-out of the mouse *Ece2* gene. The homozygous mutant mice are born in standard Mendelian ratios from heterozygous breedings. Homozygous mice develop normally, are healthy into adulthood, are fertile in both sexes, and live a normal life span.

The physical appearance, autonomic reflexes, motor co-ordination, balance, locomotor activity and spontaneous emotional responses appear normal in the knock-out mice. However, these mutants display deficits in learning and memory as evidenced by marked impairment in the Morris water maze. Homozygous knock-out mice are also deficient in object recognition memory where they show delays in discerning changes in object location and in recognizing the introduction of a novel object.

The mutants are impaired in social transmission of food preference where they show poor short-term memory and perturbations in long-term memory; the latter can be ameliorated by reminder cues.

Homozygous knock-out mice show decreased response to a single injection of morphine in hot-plate and tail-flick tests, but they develop tolerance to morphine more rapidly than wildtype controls and show fewer signs of naloxone-precipitated withdrawal.

### Development

### Control Suggestions

### Selected References

## Genetics

### *Ece2*<sup>tm1Ywa</sup>

## Disease/Phenotype

[+ Disease Terms](#)

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[+ Research Areas By Phenotype](#)

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[+ Mammalian Phenotype Terms by Genotype](#)

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[+ References](#)

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## [- 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

Probe:[Generic Neo](#)

Standard PCR:[Ece2 Alternate1](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

Homozygotes and heterozygotes are viable and fertile.

[Additional Breeding and Husbandry Support](#)

### Mating System

Heterozygote x Heterozygote

### Citation

When using the ECE-2<sup>-</sup> mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #030639 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.

**Domestic** | **International**

Pricing effective for USA, Canada and Mexico shipping destinations

## CRYORECOVERY - DOMESTIC PRICING

SERVICE/PRODUCT	DESCRIPTION	PRICE
<a href="#">Cryo Recovery</a>	Heterozygous for Ece2<tm1Ywa>	\$2,854.50

## RELATED PRODUCTS AND SERVICES

<a href="#">Frozen Mouse Embryo</a>	B6.129S6-Ece2<tm1Ywa>/J	\$2595.00
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Phone: 207-288-6470

Email: [TechTran@jax.org](mailto:TechTran@jax.org)

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