B6.129P2-Apoe<sup>tm1Unc/J</sup>

Stock No: 002052 | ApoE KO

 congic.Targeted Mutation

READILY AVAILABLE

PLACE ORDER

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.

Overview
Also Known As: ApoE KO
Mice homozygous for the Apoe\textsuperscript{\text{Tm1Unc}} mutation show a marked increase in total plasma cholesterol levels that are unaffected by age or gender. Fatty streaks in the proximal aorta are found at three months of age. The lesions increase with age and progress to lesions with less lipid but more elongated cells, typical of a more advanced stage of pre-atherosclerotic lesion.

Donating Investigator
Dr. Nobuyo Maeda, University of North Carolina at Chapel Hill

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tr>
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**Apoe\textsuperscript{\text{Tm1Unc}}**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Null/Knockout)</td>
<td>Apoe</td>
<td>apolipoprotein E</td>
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**RESEARCH APPLICATIONS**

Neurobiology Research  
Diabetes and Obesity Research  
Cardiovascular Research  
Mouse/Human Gene Homologs  
Research Tools  
Metabolism Research
**BASE PRICE**

Starting at:

$115.98 Domestic price for female 4-week

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**Details**

**Detailed Description**

Mice homozygous for the Apoe<sup>tm1Unc</sup> mutation show a marked increase in total plasma cholesterol levels that are unaffected by age or sex. Fatty streaks in the proximal aorta are found at 3 months of age. The lesions increase with age and progress to lesions with less lipid but more elongated cells, typical of a more advanced stage of pre-atherosclerotic lesion. Moderately increased triglyceride levels have been reported in mice with this mutation on a mixed C57BL/6 x 129 genetic background. Aged apoE-deficient mice (>17 months) have been shown to develop xanthomatous lesions in the brain consisting mostly of crystalline cholesterol clefts, lipid globules, and foam cells. Smaller xanthomas were seen in the choroid plexus and ventral fornix. Additional studies indicate that apoE-deficient mice have altered responses to stress, impaired spatial learning and memory, altered long term potentiation, and synaptic damage.

**Development**

**Control Suggestions**

**Selected References**

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**Genetics**

**Apoe<sup>tm1Unc</sup>**

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**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**Phenotype Information**

**References**
Genotyping Protocols
High Resolution Melting: Apoe<sup>tm1Unc</sup>
Standard PCR: Apoe<sup>tm1Unc</sup>
Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

This strain is a good breeder.

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black
Related Genotype: a/a

Citation
When using the Jackson Laboratory strain in a publication, please cite the originating articles and include JAX stock #002052 in your Materials and Methods section

Facility Barrier Level Descriptions
- MP14 (Maximum)
- RB15 (Maximum)

Pricing & Availability

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Email: TechTran@jax.org

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Related Strains

- All
- By Allele
- By Gene
- By Collection