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

Stock No: 002052 | ApoE KO

Congenic, Targeted Mutation

READILY AVAILABLE

PLACE ORDER

Sized to accommodate orders of up to 100 or more. Ask Customer Service for details.
Also Known As: ApoE KO
Mice homozygous for the Apoe<sup>tm1Unc</sup> 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>
</tr>
</thead>
<tbody>
<tr>
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<td>Contact Technical Support</td>
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<td></td>
<td>(2018-07-27 00:00:00)</td>
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**Apoel<sup>tm1Unc</sup>**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<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
Mice homozygous for the \( \text{Apoe}^{\text{tm1Unc}} \) 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.
Genotyping Protocols
Standard PCR: Apoe<sup>tm1Unc</sup>
Standard PCR: Apoe<sup>tm1Unc</sup>
Probe: Apoe<sup>tm1Unc</sup> Probe

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 ApoE KO mouse strain in a publication, please cite the originating article(s) and include JAX stock #002052 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

Pricing & Availability

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

<table>
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<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<td>Female</td>
<td>Homozygous for Apoe&lt;sup&gt;tm1Unc&lt;/sup&gt;</td>
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Terms of Use

General Terms and Conditions

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Phone: 207-288-6470

Email: TechTran@jax.org

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Related Strains

- All
- By Allele
- By Gene
- By Collection
All Related Strains

**B6(SJL)-Apoetm1.1(APOE*4)Adiuj Trem..**
Stock No: 028709 | APOE4/Trem2*R47H
Related By: APOE, Apoe

**B6(SJL)-Apoetm1.1(APOE*4)Adiuj/J**
Stock No: 027894 | APOE4 KI
Related By: APOE, Apoe

**B6.Cg-Apoem2(APOE*)Adiuj/J**
Stock No: 029018 | APOE3 KI
Related By: APOE, Apoe