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

Stock No: 002052 | ApoE KO

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
### Apoe<sup>tm1Unc</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<td>Targeted (Null/Knockout)</td>
<td>Apoe</td>
<td>apolipoprotein E</td>
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#### Neurobiology Research
- Diabetes and Obesity Research
- Cardiovascular Research
- Mouse/Human Gene Homologs
- Research Tools
- Metabolism Research

#### Starting at:

$112.60 Domestic price for female 3-week

#### 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**
Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

Phenotype Information

References

Technical Support

Genotyping Protocols
Standard PCR: Apoe^{tm}Unc
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^{tm}Unc mouse 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)
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- By Allele
- By Gene
- By Collection

All Related Strains

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