B6.129P2-Apoe tm1Unc/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.

Overview
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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</table>

**Contact Technical Support**
(2018-07-27 00:00:00)

**Apoe<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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</table>

VIEW GENETICS

RESEARCH APPLICATIONS

Neurobiology Research
Diabetes and Obesity Research
Cardiovascular Research
Mouse/Human Gene Homologs
Research Tools
Metabolism Research
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 xanthomatosus 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

Genetics

Apoe<sup>tm1Unc</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

Phenotype Information

References
Genotyping Protocols
High Resolution Melting: Apoe^{tm1Unc}
Standard PCR: Apoe^{tm1Unc}
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

Animal Health Reports
Facility Barrier Level Descriptions

MP14 (Maximum)
RB15 (Maximum)

Pricing & Availability

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<table>
<thead>
<tr>
<th>Live Mouse</th>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<td>4 weeks</td>
<td>Female</td>
<td>Homozygous for Apoe^{tm1Unc}</td>
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<td>4 weeks</td>
<td>Male</td>
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**Related Strains**

- All

- By Allele

- By Gene

- By Collection