B6.129S7-App<sup>tm10be/J</sup>

Stock No: 004133

- Congenic, Targeted Mutation

**Overview**

Homozygous App mice weigh 15%-20% less than age-matched wild-type controls, and exhibit decreased locomotor activity and forelimb grip strength. Reactive gliosis is seen in some homozygous mice at 14 weeks of age. This beta-amyloid precursor protein (APP) knock-out strain offers a model useful in studies related to Alzheimer’s disease.

**Donating Investigator**

Dr. David R Borchelt, University of Florida

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**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
</table>
**App^{tm}\text{1Dbo}}**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>App</td>
<td>amyloid beta (A4) precursor protein</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

Neurobiology Research
Mouse/Human Gene Homologs

**BASE PRICE**

Starting at:

$236.78 Domestic price for female

**Details**

**Detailed Description**

At birth, mice homozygous for the targeted allele are viable, and do not display any gross physical or behavioral abnormalities. No App gene product (mRNA or protein) is detected. Body weight is 15-20% less than that observed in wildtype age-matched control mice. By 14 weeks of age the mice exhibit evidence of reactive gliosis. Neurological evaluation reveals significantly reduced forelimb grip strength and decreased locomotor activity. This mutant strain offers a model useful in studies related to Alzheimer's disease.

**Development**

**Control Suggestions**

**Selected References**

**Genetics**

**App^{tm}\text{1Dbo}}**

**Disease/Phenotype**
**Genotyping Protocols**
Standard PCR:

**App<sup>tm1Dbo</sup>**

**Genotyping resources and troubleshooting**

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

**Breeding Considerations**
This strain originated on a B6;129S7 background and has been backcrossed to C57BL/6J for at least ten generations (7/01). Coat color expected from breeding: Black

**Additional Breeding and Husbandry Support**

**Mating System**
Homozygote x Homozygote

**Citation**
When using the B6;129S7-App<sup>tm1Dbo</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #004133 in your Materials and Methods section.

**Animal Health Reports**

**Facility Barrier Level Descriptions**
- FGB29 (Standard)

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**Pricing & Availability**

Live mice available in varying quantities. Ask Customer Service for details.

### Domestic
Pricing effective for USA, Canada and Mexico shipping destinations

#### Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Homozygous for App&lt;sup&gt;tm1Dbo&lt;/sup&gt;</td>
<td>$236.78</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Homozygous for App&lt;sup&gt;tm1Dbo&lt;/sup&gt;</td>
<td>$236.78</td>
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</tbody>
</table>
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Related Strains

All

By Allele

By Gene

By Collection

All Related Strains

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