Overview

The hypertensive BPH/2 mice have elevated systolic blood pressures at five weeks, compared to the co-selected normotensive BPN/3 (#003004) and low blood pressure BPL/1 (#003006) inbred strains.
Details

Detailed Description

The hypertensive BPH/2 mice have elevated systolic blood pressures at five weeks and by 150 days differ from the BPL/1 strain (#003006) by 60 mmHg. The BPH/2 strain has a higher heart rate, larger hearts and kidneys, and higher hematocrits than the BPL/1. It also has lower renin, aldosterone and angiotensin I levels compared to the BPL/1 and BPN/3 (#003004). The original HBP (high blood pressure) and LBP (low blood pressure) selected lines showed a number of biochemical and physiological differences which have not been reexamined in the inbred strains. These include differences in brain catecholamines, calmodulin concentrations, heat sensitivity, alcohol preference, and longevity. The differences in longevity were striking. The hypotensive selected lines lived two to three hundred days longer, on average, than the hypertensive selected line. Biometrical genetic analysis suggested that three to five genes are responsible for the difference in blood pressure between the BPH/2 and BPL/1. A recent genome scan of an F2 from a BPH/2 x BPL/1 cross found three chromosome locations that cosegregated with blood pressure. Two of these sites were verified by candidate gene cosegregation: angiotensinogen on chromosome 8 and mouse kallikrein binding protein on chromosome 12.

Development

Control Suggestions

Selected References

Genetics

Currently there are no related genes or alleles for this strain.

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

Phenotype Information

References

Technical Support
Genotyping Protocols
Genotyping resources and troubleshooting
Dietary Information
LabDiet® 5K52 formulation (6% fat)

Mating System
Sibling x Sibling

Appearance
albino

Related Genotype: Tyf<sup>C</sup>/Tyf<sup>C</sup>

Citation
When using the BPH/2J mouse strain in a publication, please include JAX stock #003005 in your Materials and Methods section.

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

Available

Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>$152.00</td>
</tr>
<tr>
<td></td>
<td>Male</td>
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</tr>
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