The BPL/1J strain is hypotensive.
Details

Detailed Description

The hypertensive BPH/2 mice (#003005) have elevated systolic blood pressures at five weeks and by 150 days differ from the BPL/1 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 pressures) 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 Phenotype

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
misty toned gray
Related Genotype: unknown

Citation
When using the BPL/1J mouse strain in a publication, please include JAX stock #003006 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

FGB29 (Standard)

Pricing & Availability

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

Available

Pricing effective for USA, Canada and Mexico shipping destinations

<table>
<thead>
<tr>
<th>LIVE MOUSE</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>
<td>$152.00</td>
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</tbody>
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THE JACKSON LABORATORY'S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain's phenotype will meet all expectations. To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee breeding performance and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.