BTBR-Pah\textsuperscript{enu2}/J

Stock No: 002232 | PAH\textsuperscript{enu2}

- Chemically Induced Mutation

AVAILABLE

PLACE ORDER

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

Overview

Also Known As: PAH\textsuperscript{enu2}

Pah\textsuperscript{enu2} mice may be useful when studying severe hyperphenylalanemia.

Donating Investigator

Dr. Alexandra Shedlovsky, University of Wisconsin, Madison

READ MORE +

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>N2p+F6</td>
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<td></td>
<td>(2019-06-13 00:00:00)</td>
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</table>

Pah\textsuperscript{enu2}

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemically induced (ENU)</td>
<td>Pah</td>
<td>phenylalanine hydroxylase</td>
</tr>
</tbody>
</table>
RESEARCH APPLICATIONS
Metabolism Research
Neurobiology Research
Mouse/Human Gene Homologs

BASE PRICE
Starting at:

- $255.00 Domestic price for female
- $10.00 Domestic price for breeder pair

Details

Detailed Description
Homozygous mutant mice show severe hyperphenylalanemia. They are hypopigmented unless maintained on a low phenylalanine diet. Females are fertile but do not rear their young when maintained on a standard mouse diet. The coat color of the background strain, BTBR<sup>T</sup> tf/tf, is black and tan (a<sup>Y</sup> a<sup>1</sup>). This strain is also homozygous for the gene tufted (tf/tf) resulting in various molting patterns in the mouse coat. These effects, limited to the mouse coat, may make the mice appear malformed.

In the Jackson Laboratory Stock No. 002232 colony, homozygous prewean pups are black and tan. They molt at 3-4 weeks of age, but when the fur grows back, the mice are brown and tan. When breeders lose their fur at an older age, it doesn't generally grow back. Our colony shows a very low percentage of mice that appear black and tan after 6-7 weeks old.

Of note, the Pah<sup>enu2</sup> mutation is also available on a congenic C57BL/6J background as Stock No. 029218.

Development

Control Suggestions

Selected References

Genetics

Pah<sup>enu2</sup>

Disease/Phenotype
Genotyping Protocols
End Point Analysis: Pah<sup>enu2</sup> Alt 1
Genotyping resources and troubleshooting

Dietary Information
LabDiet<sup>®</sup> 5K52 formulation (6% fat)

Breeding Considerations
When maintaining a live colony, heterozygous females may be bred to homozygous males.

Technician’s Note: This strain breeds well and does not require any special husbandry. The Jackson Laboratory maintains their colony on a 6% fat diet. The average litter size is 8-12 pups. The expected coat color from breeding is Black with Brown.

Additional Breeding and Husbandry Support

Mating System
Heterozygote x Homozygote

Appearance
black and tan, tufted
Related Genotype: a<sup>T</sup>/a<sup>T</sup> +/+, Tf/Tf

Homzygous prewean pups are black and tan. They molt at 3-4 weeks of age, but when the fur grows back, the mice are brown and tan. When breeders lose their fur at an older age, it doesn’t generally grow back.

Citation
When using the Pah<sup>enu2</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #002232 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
AX11 (Maximum)
## JAX® Mice, Products & Services Conditions of Use

### AGE **SEX** GENOTYPE **PRICE**

| Approx 4-8 weeks | Female | Heterozygous for Pah<sub>enu2</sub> | $255.00 |
| Male | Heterozygous for Pah<sub>enu2</sub> | $255.00 |

| Approx 4-8 weeks | Female | Heterozygous for Pah<sub>enu2</sub> | $255.00 |
| Male | Heterozygous for Pah<sub>enu2</sub> | $255.00 |

### Breeder Pair

<table>
<thead>
<tr>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Heterozygous for Pah&lt;sub&gt;enu2&lt;/sub&gt;</td>
<td>$510.00</td>
</tr>
<tr>
<td>Male</td>
<td>Homozygous for Pah&lt;sub&gt;enu2&lt;/sub&gt;</td>
<td></td>
</tr>
</tbody>
</table>

### Related Products and Services

| Frozen Mouse Embryo | $2,595.00 per straw or vial |

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Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

### The Jackson Laboratory's Genotype Promise

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### Terms Of Use

Terms of Use

General Terms and Conditions

[QUESTIONS ABOUT TERMS OF USE](#)

### Licensing Information

Phone: 207-288-6470
Email: TechTran@jax.org

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