C57BLKS-Rpl24^{Bst/J}

Stock No: 000516

- Coisogenic, Spontaneous Mutation

AVAILABILITY VARIES

CONTACT CUSTOMER SERVICE

Overview

Also Known As: C57BLKS-Bst/J

Belly spot and tail (Rpl24^{Bst}) is a semidominant, homozygous in utero lethal mutation. The mutation has variable expressivity and the heterozygous phenotypic traits include shortened and kinked tail, white feet and belly spot, malocclusion, smaller body size, exencephaly, abnormalities of the spine, ocular defects, and polydactyly. Mutants have underlying optic nerve atrophy; after seven months of age, 19% of heterozygotes have focal, nonrhematogenous, retinal detachment accompanied by subretinal neovascularization. This strain offers a model for human optic atrophy and age-related subretinal neovascularization.
GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rpl24&lt;sup&gt;Bst&lt;/sup&gt;</td>
<td></td>
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</tbody>
</table>

**Allele Type**
Spontaneous (Hypomorph)

**Gene Symbol**
Rpl24

**Gene Name**
ribosomal protein L24

RESEARCH APPLICATIONS

Dermatology Research
Sensorineural Research
Research Tools
Developmental Biology Research
Neurobiology Research

BASE PRICE

Starting at:

$74.00 Domestic price for female

Details

**Detailed Description**

Belly spot and tail (Rpl24<sup>Bst</sup>) is a semidominant, homozygous in utero lethal mutation. Adult heterozygotes are viable and fertile although a reduced birth rate for heterozygotes has been reported. This may reflect incomplete penetrance, or, more likely, prenatal mortality. The Rpl24<sup>Bst</sup> mutation has variable expressivity and the heterozygous phenotypic traits include shortened and kinked tail, white feet and belly spot, malocclusion, smaller body size, exencephaly, abnormalities of the spine, ocular defects, and polydactyly. Polydactyly is found predominantly in the right rear paw, occasionally in the left front paw and rarely in the left rear or right front paws. Approximately 50-60% of the heterozygotes have a reduction in pupillary light reflex in one or both eyes due to an underlying optic nerve atrophy. Ontological studies showed a delay in the developmental fusion of the optic fissure, a disruption of the retinal layers by embryonic day 15, and smaller optic nerves, and abnormal retinal morphology at postnatal day 0. BrdU labeling revealed a temporary delay of cellular differentiation in the neural retina at embryonic day 10.5. After seven months of age, 19% of heterozygotes have focal, nonregenerative, retinal detachment accompanied by subretinal neovascularization. Thus, this strain offers a model for human optic atrophy and age-related subretinal neovascularization. (Smith et al., 2000; Tang et al., 1999; Rice et al., 1997; Rice et al., 1995; Harris et al., 1989; Epstein et al., 1986; Southard and Eicher, 1977).

**Development**
Genetics

Rpl24<sup>Bst</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Genotyping resources and troubleshooting

Appearance

black with belly spot
Related Genotype: a/a Rpl24<sup>Bst</sup>/+

black
Related Genotype: a/a +/+  

Citation

When using the C57BL/6J-Rpl24<sup>Bst</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #000516 in your Materials and Methods section.

Facility Barrier Level Descriptions

MGL277 (Low)

Pricing & Availability

Availability Varies

Domestic | International

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>Heterozygous for Rpl24&lt;sub&gt;Bst&lt;/sub&gt;</td>
<td>$183.37</td>
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<tr>
<td></td>
<td>Male</td>
<td>Heterozygous for Rpl24&lt;sub&gt;Bst&lt;/sub&gt;</td>
<td>$183.37</td>
</tr>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Wild-type for Rpl24&lt;sub&gt;Bst&lt;/sub&gt;</td>
<td>$74.00</td>
</tr>
<tr>
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<td>Wild-type for Rpl24&lt;sub&gt;Bst&lt;/sub&gt;</td>
<td>$74.00</td>
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Email: TechTran@jax.org

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