Overview

Retinal degeneration 10 (rd10) is a spontaneous missense point mutation in Pde6b (cGMP phosphodiesterase 6B, rod receptor, beta polypeptide). Although similar to rd1, the rd10 phenotype has a later onset and milder retinal degeneration and may provide a better experimental drug therapy model for retinitis pigmentosa.
**Details**

**Detailed Description**

Pde6b (cGMP phosphodiesterase 6B, rod receptor, beta polypeptide) encodes the beta subunit of phosphodiesterase (PDE), a peripheral membrane enzyme involved in the phototransduction cascade in rod photoreceptors. Mutations in PDE are associated with retinitis pigmentosa and night blindness. Mice homozygous for retinal degeneration 10 (rd10) exhibit sclerotic retinal vessels at 4 weeks of age, progressive retinal outer nuclear layer degeneration beginning at 16 days, and a progressive decline in rod and cone ERG a- and b-waves. Retinal degeneration is delayed by approximately a week in mice raised in total darkness. Although similar to rd1, the rd10 phenotype has a later onset and milder retinal degeneration and may provide a better experimental drug therapy model for retinitis pigmentosa.

**Development**

**Control Suggestions**

**Genetics**

**Pde6b<sup>rd10</sup>**

**Disease/Phenotype**
Genotyping Protocols
Sanger sequencing: Pde6b<sup>rd10</sup>
Genotyping resources and troubleshooting

Mating System
Homozygote x Homozygote

Appearance
black
Related Genotype: a/a

Citation
When using the B6.CBY1-Pde6b<sup>rd10</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #004277 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
MGL2?? {Low}

Pricing & Availability
Availability Varies

<table>
<thead>
<tr>
<th>Domestic</th>
<th>International</th>
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<tr>
<td>Pricing effective for USA, Canada and Mexico shipping destinations</td>
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<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Homozygous for Pde6b&lt;sup&gt;rd10&lt;/sup&gt;</td>
<td>$151.83</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Homozygous for Pde6b&lt;sup&gt;rd10&lt;/sup&gt;</td>
<td>$151.83</td>
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- All
- By Allele
- By Gene
- By Collection

All Related Strains

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