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.
**RESEARCH APPLICATIONS**

Sensorineural Research

**BASE PRICE**
Starting at:

$151.83 Domestic price for female

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**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**

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

Mating System
Homzygote x Homzygote
Appearance
black
Related Genotype: a/a
Citation
When using the B6.CXB1-Pde6b<sup>rd10</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #004297 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions
MGL277 (Low)

Pricing & Availability

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<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>
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<tr>
<td></td>
<td>Male</td>
<td>Homozygous for Pde6b&lt;sup&gt;rd10&lt;/sup&gt;</td>
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