B6.129S7-Sod1<sup>tm1Leb</sup>/DnJ

Stock No: 003881 | Sod1 KO

Available for Registering Interest

Register Interest

Please contact Technical Support for more information

Overview

Also Known As: Sod1 KO

This strain is currently unavailable due to replenishing of cryopreserved stocks.

Homozygous Sod1<sup>tm1Leb</sup> knock-out mice are characterized by abnormal retinal and cochlear ganglions, and they have age-related defects in hearing, vasculature, and muscle. These mice may be useful in studying retinal dysfunction, autoimmunity, female reproductive development/function, glaucoma, hearing loss, Alzheimer's Disease, familial amyotrophic lateral sclerosis (ALS), and other age-related disorders.

Read More +

Genetic Overview

Genetic Background | Generation
**Sod1<sup>Im1Leb</sup>**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Null/Knockout)</td>
<td>Sod1</td>
<td>superoxide dismutase 1, soluble</td>
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**RESEARCH APPLICATIONS**
Metabolism Research  
Neurobiology Research

**Details**

**Detailed Description**

The Sod1<sup>Im1Leb</sup> (formerly SOD<sup>Im1ROM</sup>) knock-out allele disrupts exons 1 and 2 of the Cu,Zn-superoxide dismutase-1 gene (Sod1). This knock-out allele is the same as carried by B6;129S-Sod1<sup>Im1Leb</sup>/J (Stock No. 002972) but is fully congenic in the present strain having been backcrossed to C57BL/6J for 13 generations. In the original strain no protein expression from the targeted locus is detected in brain tissues. Heterozygous mice are viable and fertile. While homozygous males reproduce normally, homozygous females are infertile. Homozygous mice have abnormalities of the retinal ganglion, cochlear ganglion, and female reproductive development/function. Homozygous mice also exhibit age-related deafness, accelerated vascular aging and age-related skeletal muscle defects. These mutant mice may be useful in studying retinal dysfunction, autoimmunity, glaucoma, hearing loss, Alzheimer’s Disease, familial amyotrophic lateral sclerosis (ALS), and other age-related disorders.

**Development**

**Genetics**

**Sod1<sup>Im1Leb</sup>**

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Genotype**

**Mammalian Phenotype Terms by Genotype**

**References**
Genotyping Protocols
Melt Curve Analysis: Sod1<sup>tm1Leb</sup>
Standard PCR: Human HPRT
Genotyping resources and troubleshooting

Citation
When using the Sod1 KO mouse strain in a publication, please cite the originating article(s) and include JAX stock #003881 in your Materials and Methods section.

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Number of Mice
Frequency
Product
Comment

Frequency...
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All

By Allele

By Gene

By Collection

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