B6.129X1-Nox1 tm1Kkr/J

Stock No: 018787 | Nox1-

Congenic, Targeted Mutation

REPOSITORY LIVE

PLACE ORDER

2–4 week lead time for up to 4 mice at 4–8 weeks old and age requests are not accepted

Also Known As: Nox1-

These Nox1 knockout mice exhibit a decrease in blood pressure, in proliferation of vascular smooth muscle, and in aortic media hypertrophy. They may have applications in studies examining the role played by NADPH oxidase in vascular proliferation and vasoconstriction.

Donating Investigator

Karl-Heinz Krause, University of Geneva

READ MORE +

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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Nox1 tm1Kkr

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<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tr>
<td>Targeted (Null/Knockout)</td>
<td>Nox1</td>
<td>NADPH oxidase 1</td>
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VIEW GENETICS

RESEARCH APPLICATIONS

Apoptosis Research
Cardiovascular Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE
Details

Detailed Description

In this strain, a neo cassette replaces exons 3-6 of the X-linked NADPH oxidase 1 (Nox1) gene, abolishing gene expression. Homozygous females and hemizygous males are viable, fertile, and do not display any gross physical or behavioral abnormalities. The NOX1 gene product, NADPH oxidase, is an enzyme highly expressed in colon epithelium; however it is also expressed in a large number of tissues including vascular smooth muscle cells, endothelial cells, uterus, placenta, prostate, osteoclasts, retinal pericytes and others. NADPH oxidase regulates superoxide production in vascular tissues, influencing vasoconstriction, hypertension, and cellular and neuronal growth and apoptosis. These NOX1-deficient mice exhibit a decrease in blood pressure, in proliferation of vascular smooth muscle, and in aortic media hypertrophy. In response to Angiotensin II, a mediator of increased blood pressure and vascular disease, these mice show a reduction in sustained hypertension.

Development

Control Suggestions

Selected References

Genetics

Nox1<sup>tm1Kkr</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
# Genotyping Protocols

**SEPARATED MELT: Nox1<sup>tm1Kkr</sup>**

Alternate 1

Genotyping resources and troubleshooting

## Dietary Information

LabDiet® 5K52 formulation (6% fat)

## Breeding Considerations

When maintaining a live colony, homozygous females may be bred to hemizygous males.

Additional Breeding and Husbandry Support

## Mating System

Homozygote x Hemizygote

## Citation

When using the Nox1<sup>tm1Kkr</sup> mouse strain in a publication, please cite the originating article(s) and include JAX stock #018787 in your Materials and Methods section.

**Facility Barrier Level Descriptions**

- AX18 (Maximum)

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## Pricing & Availability

2–4 week lead time for up to 4 mice at 4–8 weeks old and age requests are not accepted

### Domestic

Pricing effective for USA, Canada and Mexico shipping destinations

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