B6.129X1-Nox1 tm1Kkr/J

Stock No: 018787 | Nox1-

◆ Congenic, Targeted Mutation

PLACE ORDER

2–4 week lead time for most orders depending on quantity and age range requested

Overview

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

Genetic Background
?
(2019-03-04 00:00:00)

Nox1

Allele Type
Targeted (Null/Knockout)

Gene Symbol
Nox1

Gene Name
NADPH oxidase 1

VIEW GENETICS

RESEARCH APPLICATIONS

Apoptosis Research
Cardiovascular Research

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

$0.00 Domestic price for male 4-week

VIEW PRICE LIST

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
Genotyping Protocols
SEPARATED MELT: Nox1^{tm1Kkr} 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 mouse strain in a publication, please cite the originating articles and include JAX stock #018787 in your Materials and Methods section.
Facility Barrier Level Descriptions
AX18 (Maximum)

Pricing & Availability
2–4 week lead time for most orders depending on quantity and age range requested
## Live Mouse

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