B6.129P2-Nos3 tm1Unc/J

Stock No: 002684 | eNos KO

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Also Known As: eNos KO
Mice homozygous for the nitric oxide synthase 3 endothelial cell knockout allele (Nos3<sup>−/−</sup> or eNOS<sup>−/−</sup>) may be useful for studying wound healing, hypertension and other cardiovascular defects, insulin resistance, hyperlipidemia and lung development.

Donating Investigator
Dr. Oliver Smithies, University of North Carolina at Chapel Hill

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**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
<th>Contact Technical Support</th>
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<tbody>
<tr>
<td>000664 C57BL/6J</td>
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<td>(2018-07-27 00:00:00)</td>
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**Nos3<sup>tm1Unc</sup>**

<table>
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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>Nos3</td>
<td>nitric oxide synthase 3, endothelial cell</td>
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**RESEARCH APPLICATIONS**

Internal/Organ Research
Cardiovascular Research
Diabetes and Obesity Research
Details

Detailed Description
Mice homozygous for the Nos3^{tm1Unc} targeted mutation are viable and fertile. They have elevated blood pressure that is about 20 mmHg higher than that seen in normal wildtype siblings. They also show a decreased heart rate. Female homozygotes are smaller in body weight than normal wildtype siblings. Hyperglycemic-euglycemic clamp studies demonstrate that homozygotes exhibit insulin resistance at the level of the liver and peripheral tissues.

Development

Control Suggestions

Genetics

Nos3^{tm1Unc}

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CHAT OFFLINE
Genotyping Protocols
Standard PCR: Nos3<sup>tm1Unc</sup>
Separated MCA: Nnt<sup>tm1Unc</sup>
Standard PCR: Nos3<sup>tm1Unc</sup>

Genotyping resources and troubleshooting

Dietary Information
LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

This strain is a good breeder.
When maintaining a live colony, these mice are bred as homozygotes (by homozygous sibling matings).

Additional Breeding and Husbandry Support

Mating System
Homozygote x Homozygote

Appearance
black
Related Genotype: a/a

Citation
When using the C57BL/6J mouse strain in a publication, please cite the originating article(s) and include JAX stock #002684 in your Materials and Methods section.

Animal Health Reports

Facility Barrier Level Descriptions

- AX1 (Standard)
- AX4 (Standard)

Pricing & Availability

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Email: TechTran@jax.org

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All Related Strains