Also Known As:iNOS-
Nos2<sup>tm1Lau</sup> homozygotes, unlike Nos2 wildtype mice, have virtually no serum nitric oxide response, but were susceptible to LPS-induced death. Nos2<sup>tm1Lau</sup> homozygotes exhibit altered responses to <i>M. bovis</i> (BCG), systemic <i>E. coli</i> infection, <i>M. tuberculosis</i> and <i>M. pulmonis</i>. In addition, wound healing properties of fibroblasts are impaired in Nos2<sup>tm1Lau</sup> homozygotes. These mice may be suitable for use in studies of inflammatory conditions including rheumatoid arthritis, inflammatory bowel disease, cardiac allograft rejection, hepatotoxicity, myocardial ischemia-reperfusion and septic shock.

**Donating Investigator**

Dr. Victor Laubach, University of Virginia Health Sci. Ctr.
Mice homozygous for the Nos2<sup>tm1Lau</sup> targeted mutation resemble wildtype mice in appearance and histology. Homozygotes are viable and fertile. Unlike Nos1 and Nos3, Nos2 is synthesized de novo in response to a variety of inflammatory stimuli. Induction of Nos2 results in the production of large amounts of nitric oxide (NO) over prolonged periods of time. Excessive NO production has been shown to be beneficial through its antitumor and antimicrobial activities. It is also thought to cause tissue damage and contribute to pathology in a variety of inflammatory conditions including rheumatoid arthritis, inflammatory bowel disease, cardiac allograft rejection, hepatotoxicity, myocardial ischemia-reperfusion and septic shock. NO has been demonstrated to play a role in the regulation of blood pressure and hemodynamics. In an LPS-induced model of septic shock, Nos2<sup>tm1Lau</sup> homozygotes had virtually no serum NO response, but were susceptible to LPS-induced death. Nos2<sup>tm1Lau</sup> homozygotes exhibit altered responses to M. bovis (BCG), systemic E. coli infection, M. tuberculosis and M. pulmonis. In addition, wound healing properties of fibroblasts are impaired in Nos2<sup>tm1Lau</sup> homozygotes. Also known as iNOS.
**Genotyping Protocols**

*Standard PCR:* \( \text{Nos2}_{\text{alternate4}} \)

*Genotyping resources and troubleshooting*

**Dietary Information**

LabDiet® 5K52 formulation (6% fat)

**Breeding Considerations**

*This strain is a good breeder.*

**Additional Breeding and Husbandry Support**

**Mating System**

Homozygote x Homozygote

**Appearance**

black

**Related Genotype:** \( a/a \)
When using the iNOS- mouse strain in a publication, please cite the originating article(s) and include JAX stock #002609 in your Materials and Methods section.

**Animal Health Reports**
Facility Barrier Level Descriptions

- AX8 (Standard)

**Pricing & Availability**

- Sized to accommodate orders of up to 10 or more with age range. Ask Customer Service for details.

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<th>AGE</th>
<th>SEX</th>
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All Related Strains

![Image of a mouse]  

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