

# nNOS (rat), (recombinant)

Nitric oxide synthases are a family of enzymes catalyzing the production of nitric oxide (NO) from L-arginine. NO is an important cellular signaling molecule. It helps modulate vascular tone, insulin secretion, airway tone, and peristalsis, and is involved in angiogenesis and neural development. It may function as a retrograde neurotransmitter. Nitric oxide is mediated in mammals by the calcium-calmodulin controlled isoenzymes eNOS (endothelial NOS) and nNOS (neuronal NOS). The inducible isoform, iNOS, is involved in immune response, binds calmodulin at physiologically relevant concentrations, and produces NO as an immune defense mechanism, as NO is a free radical with an unpaired electron. It is the proximate cause of septic shock and may function in autoimmune disease.

## Ordering Information

[Order Online »](#)

|                  |      |
|------------------|------|
| ALX-201-854-0010 | 10µg |
|------------------|------|

## Manuals, SDS & CofA

[View Online »](#)

## Handling & Storage

|                   |                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------|
| Use/Stability     | Stable for at least 1 year after receipt when stored at -80°C. Keep stock vial on ice during experiments. |
| Handling          | Avoid freeze/thaw cycles. After opening, prepare aliquots and store at -80°C.                             |
| Long Term Storage | -80°C                                                                                                     |
| Shipping          | Dry Ice                                                                                                   |

## Regulatory Status

RUO - Research Use Only

## Product Details

|                   |                                                                                                                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alternative Name  | Nitric oxide synthase (neuronal), NOS I                                                                                                                                                             |
| Formulation       | Liquid. In 50 mM TRIS, pH 7.4, containing 0.1 mM EDTA, 10% glycerol, 100 mM NaCl, 0.1 mM DTT, 10 µM tetrahydrobiopterin.                                                                            |
| MW                | ~160kDa/subunit; homodimer.                                                                                                                                                                         |
| Purity            | ≥90% (SDS-PAGE)                                                                                                                                                                                     |
| Source            | Produced in <i>E. coli</i> . Untagged rat nNOS.                                                                                                                                                     |
| Specific Activity | ≥500 U/mg. 1 U is defined as the amount of enzyme required to produce 1 nmol of NO (nitric oxide) per minute at 37°C. NO synthesis is measured by the conversion of oxyhemoglobin to methemoglobin. |
| UniProt ID        | P29476                                                                                                                                                                                              |

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