nNOS Electrophoresis Standard
Item No. 360870

Overview and Properties

Contents: This vial contains 5 μg purified nNOS.
Synonyms: Neuronal Nitric Oxide Synthase, NOS I, ncNOS
Source: Isolated from a Baculovirus overexpression system in Sf9 cells
M₉: 160 kDa/subunit
Purity: ≥95%
Storage: -80°C (as supplied)
Stability: ≥1 year
Storage Buffer: 50 μl of 50 mM HEPES buffer, pH 7.4, with 20% glycerol
Applications: Western blot and gel staining; this enzyme may not be catalytically active. The optimal working concentration/dilution should be determined empirically.

Image

Lane 1: nNOS Standard (2 ng)
Lane 2: nNOS Standard (20 ng)
Lane 3: nNOS Standard (100 ng)
Samples probed with nNOS Polyclonal Antibody (Item No. 160870).
**Description**

Nitric oxide synthase (NOS) catalyzes the oxidation of arginine to nitric oxide (NO) and citrulline. Three distinct isoforms of NOS have been described having nomenclature based on the tissue source from which they were originally cloned. These three isoforms are neuronal/brain NOS (nNOS/bNOS/NOS-I), inducible NOS (iNOS/NOS-II), and endothelial NOS (eNOS/NOS-III).\(^1\)\(^2\) nNOS is a soluble enzyme found in brain, the peripheral nervous system and skeletal muscle.\(^3\)\(^4\) An alternately spliced form of nNOS (nNOSμ) containing a 34 amino acid insert has been identified in skeletal muscle.\(^5\) In neurons, protein-protein interactions with PSD95 and PSD93 via the PZD domain at the N-terminus of nNOS localizes the enzyme with NMDA receptors.\(^6\)\(^7\) Although nNOS was originally thought to be constitutively expressed, abundant evidence suggests expression is regulated by a variety of conditions.\(^8\)

**References**