

Neuronal Nitric Oxide Synthase

Cat. # NP2141

Host Rabbit Polyclonal

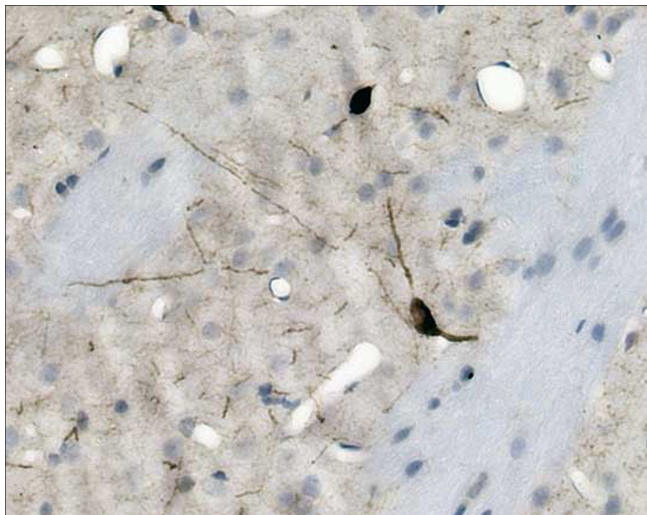
Size 100 µl

Background:

Nitric oxide (NO) has a broad range of biological activities and is implicated in signaling pathways in phylogenetically diverse species. Nitric oxide synthases (NOS), the enzymes responsible for synthesis of NO, are homodimers whose monomers are themselves two fused enzymes: a cytochrome reductase and a cytochrome that requires three cosubstrates (L-arginine, NADPH, and O₂) and five cofactors or prosthetic groups (FAD, FMN, calmodulin, tetrahydrobiopterin, and heme). Several distinct NOS isoforms are produced from three distinct genes. These include two constitutive Ca²⁺/CaM-dependent forms of NOS: nNOS (also designated bNOS, NOS-I), whose activity was first identified in neurons and eNOS (also designated ecNOS, NOS-III) first identified in endothelial cells. The inducible form of NOS, iNOS (also designated NOS-II), is Ca²⁺ independent and is expressed in a broad range of cell types. This form of NOS is induced after stimulation with cytokines and exposure to microbial products.

References

Kleinert, H. et al. (2003) Biol Chem. 384(10-11):1343.
Xie, Q.W. et al. (1992) Science 256:225.



Formalin fixed, citric acid treated paraffin sections of adult Rat striatum. Sections were probed with anti-nNOS (NP2141) then anti-Rabbit:HRP before detection using DAB. (Images provided by Carl Hobbs and Dr. Pat Doherty at Wolfson Centre for Age-Related Diseases, King's College London).



Western blot analysis of rat brain tissue lysate (10 µg/lane). Blot was probed with anti-neuronal Nitric Oxide Synthase (nNOS) at 1:250 (lane 1) or 1:1000 (lane 2).

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Size 100 µl

Immunogen:

Amino acid residues within the C-terminal region of human nNOS. The human nNOS sequence used has high homology with similar regions in rat and mouse nNOS.

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Applications:

WB 1:1000

ELISA 1:2000

IHC 1:300

End user should determine optimal dilution for their particular applications and experiments.
Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1hour at room temperature.

Specificity:

The antibody detects a 155 kDa* protein on SDS-PAGE immunoblots of rat and mouse brain tissue lysates.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

Related Products:

NP2131 Inducible Nitric Oxide Synthase Rabbit Polyclonal

BL7011 Mouse Brain Lysate

NM2211 Endothelial Nitric Oxide Synthase (C-terminal region) Mouse

NP2281 Endothelial Nitric Oxide Synthase Rabbit Polyclonal

NM2321 Endothelial Nitric Oxide Synthase (Ser-632), phospho-specific

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