

Background

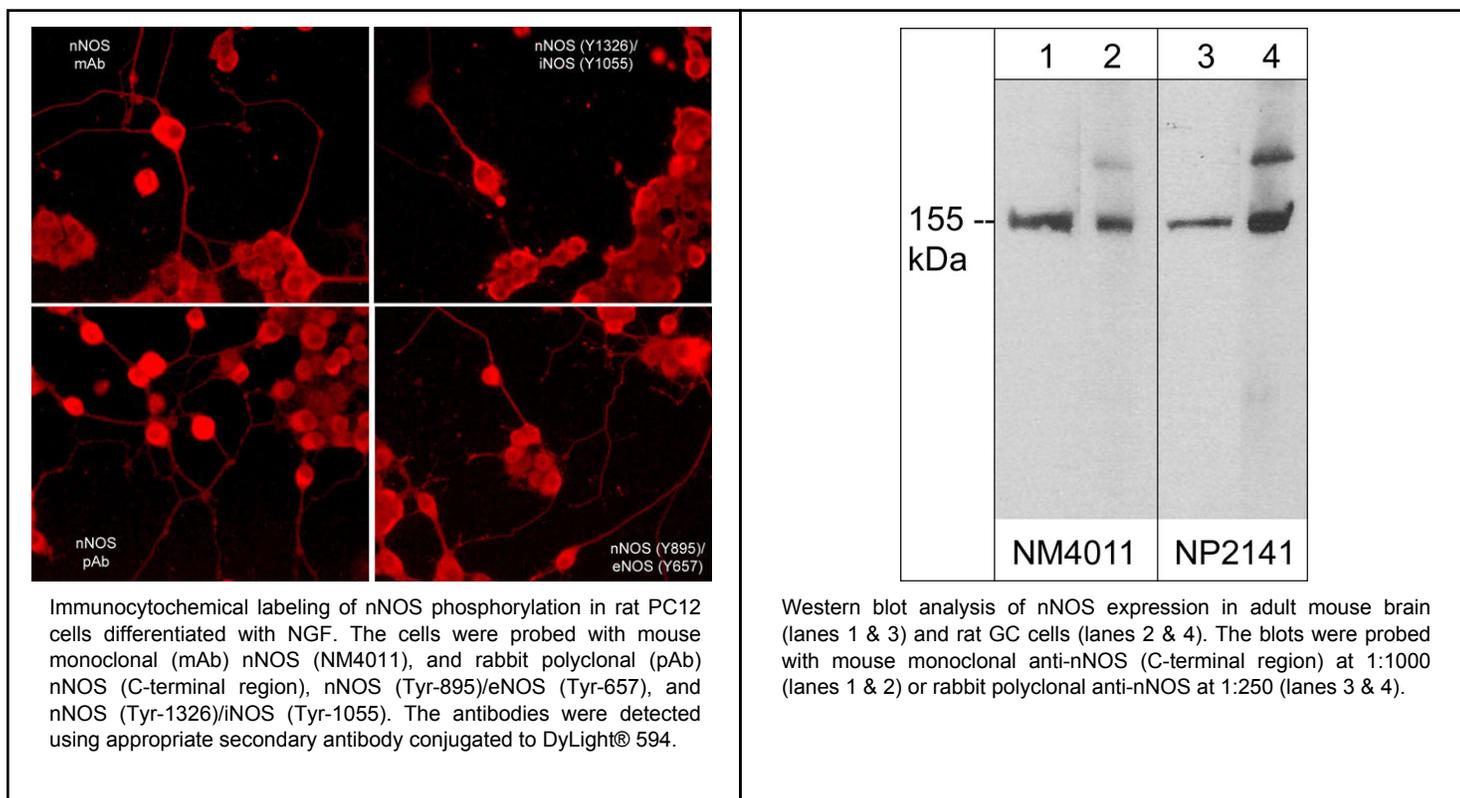
Nitric oxide (NO) has a broad range of biological activities and is implicated in signaling pathways in phylogenetically diverse species. Nitric oxide synthases (NOS), the enzymes responsible for synthesis of NO, are homodimers whose monomers are themselves two fused enzymes: a cytochrome reductase and a cytochrome that requires three cosubstrates (L-arginine, NADPH, and oxygen) 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.



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to
Outperform**

Background References

- Xie, Q.W. et al. (1992) *Science* 256:225.
 Kleinert, H. et al. (2003) *Biol Chem.* 384(10-11):1343.
 Musicki, B. et al. (2005) *Proc. Natl. Acad. Sci.* 102(33):11870.



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Immunogen**Uniprot ID: P29475**

Clone (M401) was generated from a recombinant protein that included amino acid residues within the C-terminal region of human nNOS. This human nNOS sequence has high homology with similar regions in rat and mouse nNOS.

Product Citations

Stasko, S. et al. (2013) J Appl Physiol. 114(11):1629.
WB: mouse diaphragm, normal, deficient

Buffer and Storage

Mouse monoclonal antibody purified with protein A chromatography is supplied in 100µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Stable for 1 year.

Applications

WB	1:1000
ELISA	1:2000
IHC	1:200
ICC	1:100

Species Reactivity

Hu, Rt, Ms

Isotype: IgG2a

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, Tris buffer, 0.04% Tween20 for 1 hour at room temperature.
Abbreviations: E = ELISA, ICC = immunocytochemistry, IHC = immunohistochemistry, IP = immunoprecipitation, MS = mass spectrometry, WB = western blot
Hu = Human, Ms = Mouse, Rt = Rat, Ck = Chicken, F = Frog, B = Bovine

Specificity

The antibody detects a 155 kDa* protein on SDS-PAGE immunoblots of rat and mouse brain tissue lysates, as well in the rat pituitary cell line GC.

*All molecular weights (MW) are confirmed by comparison to MW standards and to western blot mobilities of known proteins with similar MW.
Native western blot utilizes non-reducing sample buffer (no mercaptoethanol or SDS), normal SDS-PAGE gel electrophoresis, and no methanol in transfer buffers.

Related Products

- NP2141 nNOS (C-terminal region) Rabbit Polyclonal
- NP2131 iNOS (C-terminal region) Rabbit Polyclonal
- NP2281 eNOS Rabbit Polyclonal
- NM2211 eNOS (C-terminal region) Mouse Monoclonal
- NP4031 eNOS (Tyr-657)/nNOS (Tyr-895), phospho-specific Rabbit Polyclonal
- NM2321 eNOS (Ser-632), phospho-specific Mouse Monoclonal



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