ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Inducible Nitric Oxide Synthase 2 (iNOS/NOS-2) Antibodies

□ Cat # INOS24-M Mouse monoclonal anti-mouse NOS-II/iNOS IgG # 1, aff pure
SIZE: 100 ul

Nitric oxide (NO), a diffusible free radical gas, acts as a neurotransmitter in brain and peripheral nervous system. It accounts for the activity of endothelium-derived relaxing factors, which stimulate vasodilatation by releasing NO from the endothelium. NO is synthesized by L-arginine, oxygen, and NADPH by three known isoforms of heme-containing flavoproteins termed NO synthase (NOS, I-III, mol wt. ~130-160 kDa). One group of enzyme is constitutive, agonist-triggered, and dependent on Ca2+/Calmodulin and is inhibited by L-arginine analogues (L-NNA, L-NMMA). It is found in endothelium, adrenal glands, brain and platelets. The other principle group is inducible, Ca^{2+}/Calmodulin-independent, and inhibited by NMMA and L-NNA. It has been found in macrophage, hepatocytes, tumor cells, vascular smooth muscle and endothelial cells. Analyses of cDNA clones have identified three distinct NOS genes in mammals: neuronal (nNOS/bNOS/NOS-I), endothelial (eNOS/NOS-III), and macrophage (mNOS/iNOS/NOS-II). Both nNOS and eNOS are constitutive and the mNOS/iNOS is inducible. Sequence homology among different cloned isoforms is ~ 50%. Human, rat, and mouse iNOS/NOS-2 are ~1145 aa proteins (1).

Source of Peptide Antigen and Antibodies

Antigen	Human NOS2 recombinant protein 1-175 fragament corresponding to human iNOS (**protein accession # P35228**) (1)
Ab Host/type	Mouse, Monoclonal IgG # **INOS24-M**
2-Ab	Cat # 40120, goat anti-mouse IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

IgG

□ 100ul □ solution □ lyophilized
Supplied in PBS with < 0.1% sodium azide and 0.1% gelatin.
Reconstitute powder in 100 ul PBS

Storage
Store at **4°C**, **DO NOT FREEZE**.

Stability: Stable for one year from the date of shipment at **4°C**.
Shipping: **4°C** for solutions

Recommended Usage

Western Blotting: (starting dilution 1:200, dilution range 1:100-1:1000). It is suggested that users optimize actual dilution and conditions according their application.

ELISA: Control peptide should be coated at 1 ug/ml. starting dilution 1:30, dilution range 1:30-1:3000.

Immunocytochemistry: We recommend the use of affinity pure antibody to reduce background (use at 5-10 ug/ml). Useful on tissue sections fixed with 3.5% paraformaldehyde. An overnight incubation with antibody at 4oC is recommended and detection by ABC (peroxidase) technique. Positive staining is seen in Glial, Purkinje and layer 5 cortical neurons.

Antibody specificity and Cross-reactivity

Antibody #INOS24-M reacts with human iNOS and it may also react with the mouse and rat iNOS due to the use of large fragment of inOS used as antigen. No significant reactivity is seen with iNOS-1/NOS-3 or other proteins. Antibody crossreactivity in various other species is not established. Antibodies to mouse/rat iNOS (#iNOS-A, iNOS22-S, and iNOS23-M) are also available.

General References: (1) Schmidt HH et al (1994) Cell 78, 919-925; (2) Farias-Eisner R et al (1994) Proc. Natl. Acad. Sci. USA 91, 9407-9411.

Citations of for iNOS (see updated list at the web site)
XU, X, 2001, Eur. J. Pharmacol. 416, 1-9 (WB); Xu, X, 2001, Biochem. Pharmacol. 59, 509-516 (WB); Leiro JM, 2003, Int. J. Immunopharmacol. 4, 163-177; Leiro J, 2004, J. Leukoc. Biol., 75: 1156 – 1165;

For In Vitro Research Use and Manufacturing Only.

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Antibodies to NOSI-III
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Alpha Diagnostic Intl Inc., 4638 N Loop 1604 West, San Antonio, TX 78249, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com