ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

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

Cat # INOS25-R-10	Recombinant Mouse iNOS/NOS-2 protein	**SIZE**: 10 ug
Cat # INOS25-R-50	Recombinant Mouse iNOS/NOS-2 protein	**SIZE**: 50 ug

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

Mouse NOS2 protein (full length; gene accession # BC062378) was expressed as fusion protein (His tag-NOS2) in E.coli and purified (>95% with major band at ~130kDa). Purified mouse NOS2 protein is supplied in 50mM Tris-HCl, pH 8.0, 250mM NaCl, 0.75% sodium lauroyl Sarcosine, 1mM EDTA, 10mM beta-mercapto-ethanol at a conc. of 1mg/ml (lot specific conc. is provided on the vial). Store at -20ºC or below. Avoid frequent freeze and thaw

Recommended Usage

Western Blotting.

ELISA:

General References: (1) Lowenstein CJ et al (1992) PNAS 89, 6711-6715; Lyons CR et al (1992) J Biol Chem. 267, 6370-6374; Zie Q-W et al (1992) Science 256, 225-228; Nunokawa Y et al (1993) BBRC 191, 89

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.

Related items available from ADI

Antibodies to NOSI-III

Recombiantn NOS proteins

iNOS22-R-10-50 110801A

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