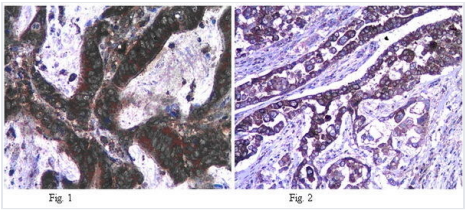
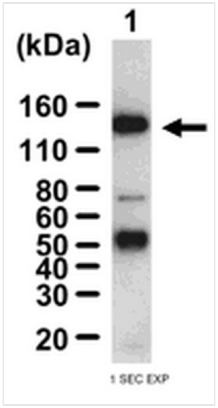
NOS II (NOS2) Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

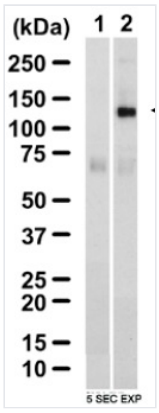
Product Name	NOS II (NOS2), Polyclonal Antibody
Full Product Name	NOS II (iNOS, Nitric Oxide Synthase, NOS 2) (FITC)
Product Gene Name	anti-NOS2 antibody
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse, Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Fluorescein Isothiocyanate (FITC).
Purity/Purification	Purified by affinity chromatography.
Specificity	Recognizes mouse NOS II, Mr ~125kD. Species Crossreactivity: human
Preparation and Storage	Store product at 4 degree C if to be used immediately within two weeks. For long-term storage, aliquot to avoid repeated freezing and thawing and store at -20 degree C. Aliquots are stable at -20 degree C for 12 months after receipt. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer.
Molecular Weight	125
3D Structure	ModBase 3D Structure for P29477
Immunogen	Recombinant protein corresponding to the N-terminus of mouse iNOS/NOS II, GST-tagged. Species sequence homology: Rat (85%)
Conjugate	FITC
Positive Control	IFNgamma/LPS untreated and treated RAW264.7 cell lysates
Note	Preservative Free
Product Categories/Family for anti-NOS2 antibody	Antibodies; Nitric Oxide
Applications Tested/Suitable for anti-NOS2 antibody	Immunohistochemistry (IHC) Paraffin, Western Blot (WB), Immunoprecipitation (IP)
Application Notes for anti-NOS2 antibody	IHC-P: 1:50-1:2:00 WB: 0.5ug/ml IP: 10ug per 500ug treated cell lysate Applications are based on unconjugated antibody.
Related Product Information for anti-NOS2 antibody	MBS6490300 is an antibody targeting NOS2. Also known as NOS II (iNOS, Nitric Oxide Synthase, NOS 2) (FITC). Reactive in Mouse, Human. Host: Rabbit.
Other Notes	Small volumes of anti-NOS2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Immunohistochemistry (IHC) of anti-NOS2 antibody
Immunohistochemistry Analysis: Representative lot data. Paraffin-embedded malignant cells of human lung tissue (Fig. 1 & 2) was prepared using heat-induced epitope retrieval in citrate buffer, pH 6.0.



Immunoprecipitation (IP) of anti-NOS2 antibody
Immunoprecipitation Analysis: Representative lot data. 10 ug of this antibody immunoprecipitated iNOS/NOSII from 0.5 mg of IFNgamma/LPS treated RAW264.7 cell lysate



Western Blot (WB) of anti-NOS2 antibody
Western blot analysis: IFNgamma/LPS untreated (lane 1) and treated (lane 2) RAW264.7 cell lysates were probed with Anti-iNOS/NOS II, NT (0.5ug/mL). Proteins were visualized using a Donkey Anti-Rabbit IgG secondary antibody conjugated to HRP and a chemiluminescence detection system.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for NOS2. It may not necessarily be applicable to this product.

NCBI GI #	6754872
NCBI GeneID	18126
NCBI Accession #	NP_035057
UniProt Primary Accession #	P29477
UniProt Related Accession #	P29477
GenBank Nucleotide #	NP_035057.1
NCBI Official Full Name	nitric oxide synthase, inducible isoform a
NCBI Official Synonym Full Names	nitric oxide synthase 2, inducible
NCBI Official Symbol	Nos2
NCBI Official Synonym Symbols	iNOS; Nos-2; Nos2a; i-NOS; NOS-II; MAC-NOS
UniProt Protein Name	Nitric oxide synthase, inducible
UniProt Synonym Protein Names	Inducible NO synthase; Inducible NOS; iNOS; Macrophage NOS; MAC-NOS; NOS type II; Peptidyl-cysteine S-nitrosylase NOS2

Protein Family	Nitric oxide synthase
UniProt Gene Name	Nos2
UniProt Synonym Gene Names	Inosl; Inducible NOS; iNOS; MAC-NOS
UniProt Entry Name	NOS2_MOUSE
NCBI Protein Information	nitric oxide synthase, inducible
NCBI Summary for NOS2	Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. This gene encodes a nitric oxide synthase that is inducible by a combination of lipopolysaccharide and certain cytokines. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Sep 2015]
UniProt Comments for NOS2	iNOS: Produces nitric oxide (NO) which is a messenger molecule with diverse functions throughout the body. In macrophages, NO mediates tumoricidal and bactericidal actions. Also has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such COX2. Homodimer. Binds SLC9A3R1. By endotoxins and cytokines. Induced by IFNG/IFN-gamma acting synergistically with bacterial lipopolysaccharides (LPS), TNF or IL1B/interleukin-1 beta. Expressed in the liver, retina, bone cells and airway epithelial cells of the lung. Not expressed in the platelets. Regulated by calcium/calmodulin. Aspirin inhibits expression and function of this enzyme and effects may be exerted at the level of translational/post-translational modification and directly on the catalytic activity. Belongs to the NOS family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: EC 1.14.13.39; Amino Acid Metabolism - arginine and proline; Oxidoreductase Cellular Component: cortical cytoskeleton; extracellular space; perinuclear region of cytoplasm; cytoplasm; peroxisome; intracellular; vesicle membrane; cytosol; nucleus Molecular Function: protein homodimerization activity; FAD binding; nitric-oxide synthase activity; metal ion binding; beta-catenin binding; cAMP-dependent protein kinase regulator activity; oxidoreductase activity; Hsp90 protein binding; actin binding; protein kinase binding; calmodulin binding; protein binding; NADPH-hemoprotein reductase activity; FMN binding; cadherin binding; iron ion binding; heme binding; nitric-oxide synthase binding; NADP binding; receptor binding Biological Process: superoxide metabolic process; response to lipopolysaccharide; positive regulation of guanylate cyclase activity; positive regulation of killing of cells of another organism; positive regulation of vasodilation; ovulation from ovarian follicle; regulation of cell proliferation; defense response to bacterium; response to hypoxia; peptidyl-cysteine S-nitrosylation; arginine catabolic process; negative regulation of blood pressure; negative regulation of protein catabolic process; nitric oxide biosynthetic process; inflammatory response; regulation of protein kinase activity; regulation of insulin secretion; nitric oxide mediated signal transduction
Research Articles on NOS2	**1.** INOS increases HSP70 expression in the hepatocytes after ischemia/reperfusion injury.Liver INOS protects from hepatic ischemia/reperfusion injury through the HSF1-dependent activation of the HSP70.
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