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NOS2 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1718a

Specification

NOS2 Antibody - Product Information

Application	**WB, IHC, FC, E**
Primary Accession	P35228
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**131kDa KDa**

Description
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 which is expressed in liver and is inducible by a combination of lipopolysaccharide and certain cytokines. Three related pseudogenes are located within the Smith-Magenis syndrome region on chromosome 17.

Immunogen
Purified recombinant fragment of human NOS2 expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

NOS2 Antibody - Additional Information

Gene ID 4843

Other Names
Nitric oxide synthase, inducible, 1.14.13.39, Hepatocyte NOS, HEP-NOS, Inducible NO synthase, Inducible NOS, iNOS, NOS type II, Peptidyl-cysteine S-nitrosylase NOS2, NOS2, NOS2A

Dilution
WB~~1/500 - 1/2000
IHC~~1/200 - 1/1000
FC~~1/200 - 1/400
E~~1/10000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
NOS2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

NOS2 Antibody - Protein Information

Name NOS2 (HGNC:7873)

Synonyms NOS2A

Function
Produces nitric oxide (NO) which is a messenger molecule with diverse functions throughout the body (PubMed:7504305, PubMed:7531687, PubMed:7544004, PubMed:7682706). In macrophages, NO mediates tumoricidal and bactericidal actions. Also has nitrosylase activity and mediates cysteine S-nitrosylation of cytoplasmic target proteins such PTGS2/COX2 (By similarity). As component of the iNOS-S100A8/9 transnitrosylase complex involved in the selective inflammatory stimulus-dependent S-nitrosylation of GAPDH on 'Cys-247' implicated in regulation of the GAIT complex activity and probably multiple targets including ANXA5, EZR, MSN and VIM (PubMed:25417112). Involved in inflammation, enhances the synthesis of pro-inflammatory mediators such as IL6 and IL8 (PubMed:19688109).

Cellular Location
Cytoplasm, cytosol. Note=Localizes as discrete foci scattered throughout the cytosol and in the presence of SPSB1 and SPSB4, exhibits a more diffuse cytosolic localization.

Tissue Location
Expressed in the liver, retina, bone cells and airway epithelial cells of the lung. Not expressed in the platelets Expressed in chondrocytes (PubMed:7504305)

NOS2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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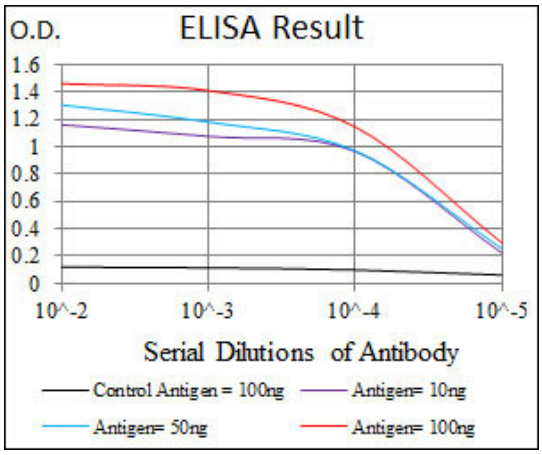

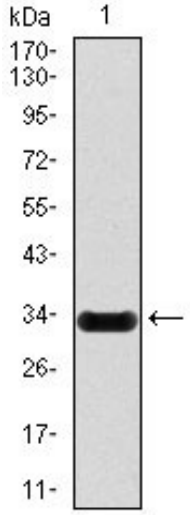

Figure 1: Western blot analysis using NOS2 mAb against human NOS2 (AA: 997-1058) recombinant protein. (Expected MW is 32.6 kDa)

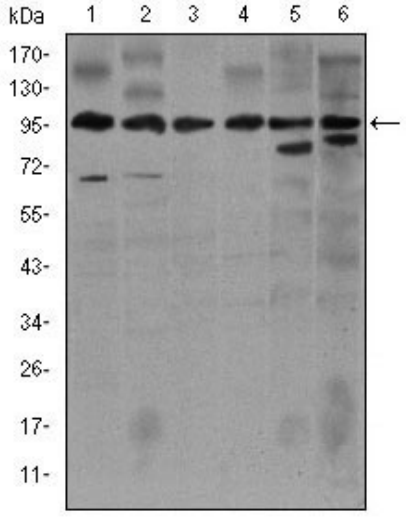

Figure 2: Western blot analysis using NOS2 mouse mAb against Jurkat (1), Jurkat (2), A549 (3), HeLa (4), NIH3T3 (5)and MCF-7 (6) cell lysate.

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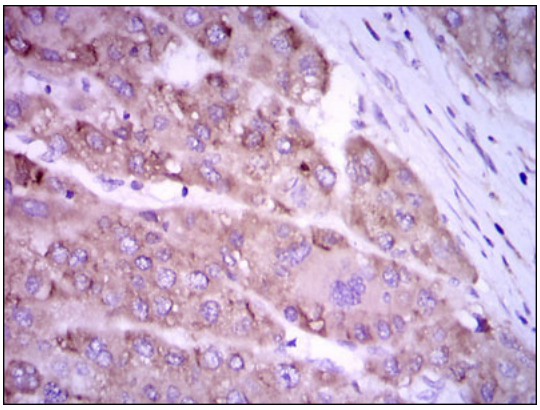

Figure 3: Immunohistochemical analysis of paraffin-embedded liver cancer tissues using NOS2 mouse mAb with DAB staining.

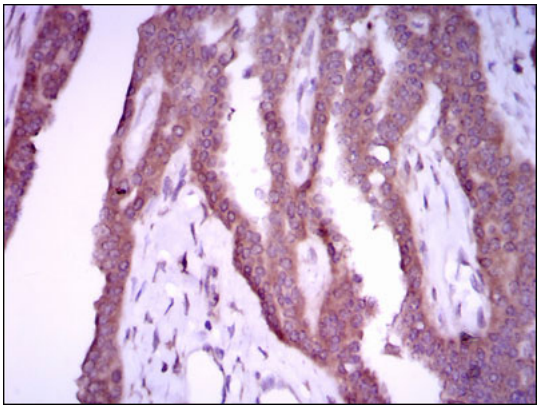

Figure 4: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using NOS2 mouse mAb with DAB staining.

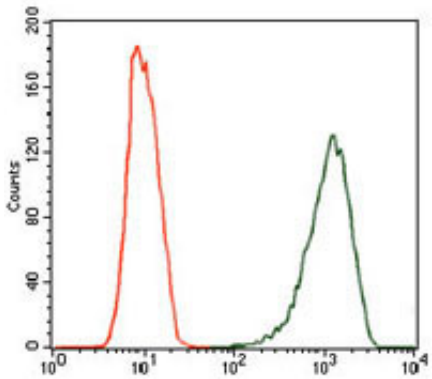

Figure 5: Flow cytometric analysis of MCF-7 cells using NOS2 mouse mAb (green) and negative control (red).

NOS2 Antibody - References

1. Pediatr Allergy Immunol. 2010 Dec;21(8):1151-6. 2. J Biol Chem. 2010 Dec 31;285(53):41422-31.