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NOS2 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1718a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P35228
Reactivity	Human, Mouse
Host	Mouse
Clonality	Monoclonal
Clone Names	4E5
Isotype	IgG1
Calculated MW	131117
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

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.

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)

References

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

Images

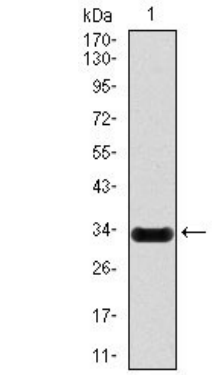

Figure 1: Western blot analysis using NOS2 mAb against human NOS2 (AA: 997-1058) recombinant protein. (Expected MW is 32.6 kDa)

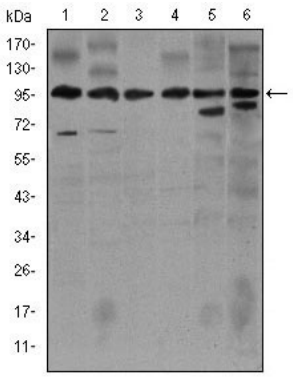

Figure 2: Western blot analysis using NOS2 mouse mAb against Jurkat (1), Jurkat (2), A549 (3), HeLa (4), NIH3T3 (5)and MCF-7 (6) cell lysate.

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

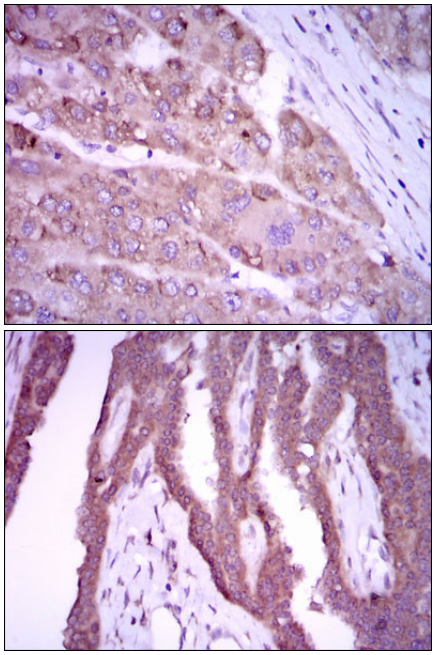

Figure 4: Immunohistochemical analysis of paraffin-embedded breast cancer tissues using NOS2 mouse mAb with DAB staining.

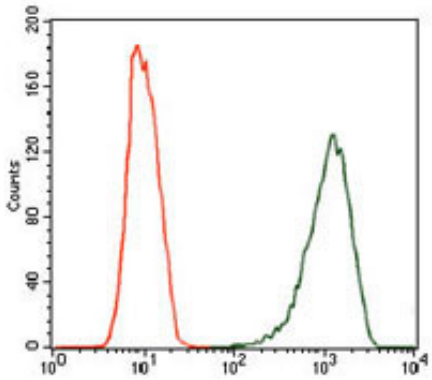

Figure 5: Flow cytometric analysis of MCF-7 cells using NOS2 mouse mAb (green) and negative control (red).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.