10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NOS3 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6963a

Product Information

Application	WB, IHC-P, IF, FC, E
Primary Accession	P29474
Other Accession	Q28969, P29473
Reactivity	Human, Rat, Mouse
Predicted	Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18211
Calculated MW	133275
Antigen Region	48-75

Additional Information

Gene ID	4846
Other Names	Nitric oxide synthase, endothelial, Constitutive NOS, cNOS, EC-NOS, Endothelial NOS, eNOS, NOS type III, NOSIII, NOS3
Target/Specificity	This NOS3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 48-75 amino acids from the N-terminal region of human NOS3.
Dilution	WB~~1:1000 IHC-P~~1:100~500 IF~~1:10~50 FC~~1:10~50 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NOS3 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NOS3 (HGNC:7876)
Function	Produces nitric oxide (NO) which is implicated in vascular smooth muscle

	relaxation through a cGMP-mediated signal transduction pathway (PubMed:1378832). NO mediates vascular endothelial growth factor (VEGF)-induced angiogenesis in coronary vessels and promotes blood clotting through the activation of platelets.
Cellular Location	Cell membrane. Membrane, caveola. Cytoplasm, cytoskeleton. Golgi apparatus. Note=Specifically associates with actin cytoskeleton in the G2 phase of the cell cycle; which is favored by interaction with NOSIP and results in a reduced enzymatic activity
Tissue Location	Platelets, placenta, liver and kidney.

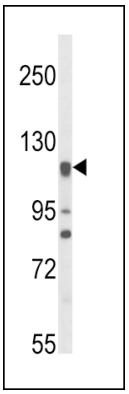
Background

Nitric oxide is a reactive free radical which acts as a biologic mediator in several processes, including neurotransmission and antimicrobial and antitumoral activities. Nitric oxide is synthesized from L-arginine by nitric oxide synthases.

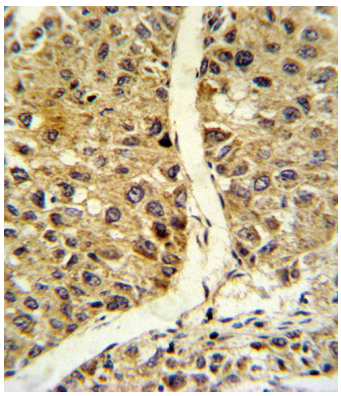
References

Rikova,K., et.al., Cell 131 (6), 1190-1203 (2007)

Images

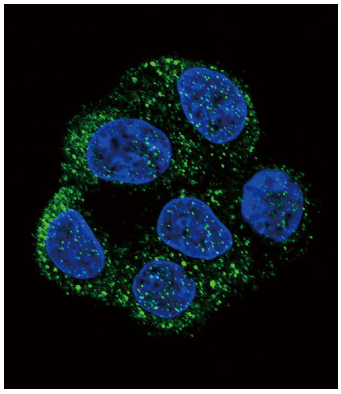


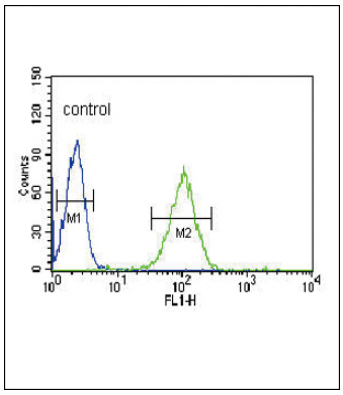
Western blot analysis of NOS3 Antibody (N-term) (Cat. #AP6963a) in HL-60 cell line lysates (35ug/lane). NOS3 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma reacted with NOS3 Antibody (N-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Confocal immunofluorescent analysis of NOS3 Antibody (N-term)(Cat#AP6963a) with HepG2 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit lgG (green).DAPI was used to stain the cell nuclear (blue).





NOS3 Antibody (N-term) (Cat. #AP6963a) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

Citations

- Oxidative stress and inhibition of nitric oxide generation underlie methotrexate-induced senescence in human colon cancer cells.