

NOSTRIN Antibody

Catalog # ASC11873

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q8IVI9
Other Accession	NP_443178 , 284172479
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	57660
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NOSTRIN antibody can be used for detection of NOSTRIN by Western blot at 1 - 2 μ g/ml. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	115677
Other Names	Nostrin, BM247 homolog, Nitric oxide synthase traffic inducer, Nitric oxide synthase trafficker, eNOS-trafficking inducer, NOSTRIN
Target/Specificity	NOSTRIN; NOSTRIN antibody is human, mouse and rat reactive. At least four isoforms are known to exist; this antibody will detect all four isoforms.
Reconstitution & Storage	NOSTRIN antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Precautions	NOSTRIN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NOSTRIN (HGNC:20203)
Function	Multivalent adapter protein which may decrease NOS3 activity by inducing its translocation away from the plasma membrane.
Cellular Location	[Isoform 1]: Cell membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasmic vesicle. Cytoplasm, cytoskeleton Note=Enriched in selected actin structures (PubMed:16234328, PubMed:16376344)
Tissue Location	Expressed at highest levels in heart, kidney, placenta and lung, and at lowest levels in brain, thymus and spleen Present in vascular endothelial cells and placenta. Over-expressed in placenta from women with pre-eclampsia (at

Background

NOSTRIN, also known as endothelial nitric oxide synthase traffic inducer, is a member of the Pombe Cdc15 homology (PCH) family of proteins which may function as the modulator of the subcellular localisation and activity of endothelial nitric oxide synthase (eNOS) (1,2). It decreases NOS3 activity by inducing its translocation away from the plasma membrane (3). NOSTRIN typically exists as a trimer and is expressed in the vascular endothelial cells of highly vascularized tissues such as placenta, lung, kidney and heart. NOSTRIN is necessary for proper vascular development in zebrafish and postnatal retinal angiogenesis in mice (4,5).

References

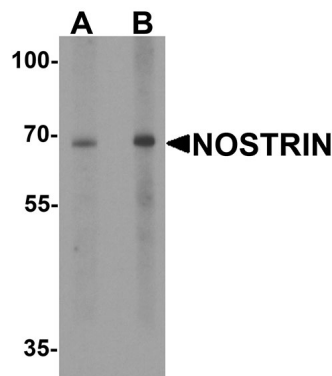
Zimmermann K, Opitz N, Dedio J, et al. NOSTRIN: a protein modulating nitric oxide release and subcellular distribution of endothelial nitric oxide synthase. *Proc. Natl. Acad. Sci. USA* 2002; 99:17167-72.

Icking A, Matt S, Opitz N, et al. NOSTRIN functions as a homotrimeric adaptor protein facilitating internalization of eNOS. *J. Cell Sci.* 2005; 118:5059-69.

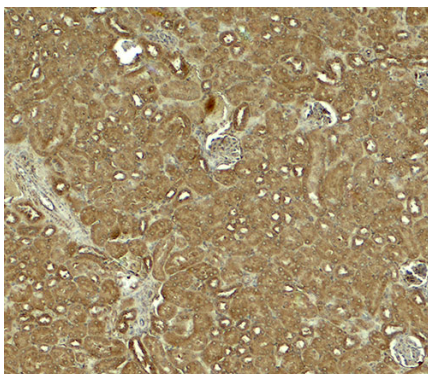
Schilling K, Opitz N, Wiesenthal A, et al. Translocation of endothelial nitric-oxide synthase involves a ternary complex with caveolin-1 and NOSTRIN. *Mol. Biol. Cell* 2006; 17:3870-80.

Icking A, Schilling K, Wiesenthal A, et al. FCH/Cdc15 domain determines distinct subcellular localization of NOSTRIN. *FEBS Lett.* 2006; 580:223-8.

Images

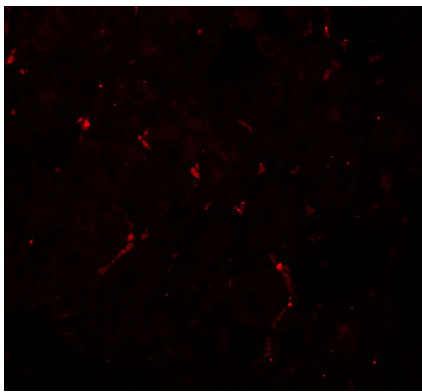


Western blot analysis of NOSTRIN in SW480 cell lysate with NOSTRIN antibody at (A) 1 and (B) 2 μ g/ml.



Immunohistochemistry of NOSTRIN in mouse kidney tissue with NOSTRIN antibody at 5 μ g/ml.

Immunofluorescence of NOSTRIN in mouse kidney tissue with NOSTRIN antibody at 20 μ g/ml.



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