

NOSTRIN (H-300): sc-134803

BACKGROUND

NOSTRIN (nitric oxide synthase trafficker isoform 1), also known as endothelial nitric oxide synthase traffic inducer, is a member of the Pombe Cdc15 homology (PCH) family of proteins. NOSTRIN is expressed in the vascular endothelial cells of highly vascularized tissues such as placenta, lung, kidney and heart. It consists of an N-terminal Cdc15 domain with an FCH (Fes/CIP homology) region, two coiled coil domains and a C-terminal SH3 domain. NOSTRIN typically exists as a trimer. It functions as an adaptor protein binding to caveolin-1 via an internal domain and NOS3 via its SH3 domain, forming a ternary complex which facilitates caveolar transport of NOS3. The NOS3 protein is responsible for the production of nitric oxide (NO), a potent mediator in various biological processes. The translocation of NOS3 from the plasma membrane to intracellular vesicle-like structures diminishes NO production. NOSTRIN also interacts with Dynamin and N-WASP via its SH3 domain.

REFERENCES

- Zimmermann, K., et al. 2002. NOSTRIN: a protein modulating nitric oxide release and subcellular distribution of endothelial nitric oxide synthase. *Proc. Natl. Acad. Sci. USA* 99: 17167-17172.
- Choi, Y.J., et al. 2005. Cloning and characterization of mouse disabled 2 interacting protein 2, a mouse orthologue of human NOSTRIN. *Biochem. Biophys. Res. Commun.* 326: 594-599.

CHROMOSOMAL LOCATION

Genetic locus: NOSTRIN (human) mapping to 2q24.3; Nostrin (mouse) mapping to 2 C2.

SOURCE

NOSTRIN (H-300) is a rabbit polyclonal antibody raised against amino acids 207-506 mapping at the C-terminus of NOSTRIN of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

NOSTRIN (H-300) is recommended for detection of NOSTRIN of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NOSTRIN siRNA (h): sc-72295, NOSTRIN siRNA (m): sc-72296, NOSTRIN shRNA Plasmid (h): sc-72295-SH, NOSTRIN shRNA Plasmid (m): sc-72296-SH, NOSTRIN shRNA (h) Lentiviral Particles: sc-72295-V and NOSTRIN shRNA (m) Lentiviral Particles: sc-72296-V.

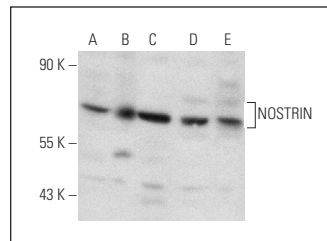
Molecular Weight of NOSTRIN: 58 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, NCI-H460 whole cell lysate: sc-364235 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NOSTRIN (H-300): sc-134803. Western blot analysis of NOSTRIN expression in HeLa (A), K-562 (B), Hep G2 (C), NCI-H460 (D) and A549 (E) whole cell lysates.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


 MONOS
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Try **NOSTRIN (F-10): sc-365031** or **NOSTRIN (B-9): sc-373954**, our highly recommended monoclonal alternatives to NOSTRIN (H-300).