

NOSTRIN (F-10): sc-365031

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.

CHROMOSOMAL LOCATION

Genetic locus: NOSTRIN (human) mapping to 2q24.3.

SOURCE

NOSTRIN (F-10) is a mouse monoclonal antibody raised against amino acids 207-506 mapping at the C-terminus of NOSTRIN of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NOSTRIN (F-10) is available conjugated to agarose (sc-365031 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365031 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365031 PE), fluorescein (sc-365031 FITC), Alexa Fluor[®] 488 (sc-365031 AF488), Alexa Fluor[®] 546 (sc-365031 AF546), Alexa Fluor[®] 594 (sc-365031 AF594) or Alexa Fluor[®] 647 (sc-365031 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365031 AF680) or Alexa Fluor[®] 790 (sc-365031 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor[®] is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

NOSTRIN (F-10) is recommended for detection of NOSTRIN of human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 shRNA Plasmid (h): sc-72295-SH and NOSTRIN shRNA (h) Lentiviral Particles: sc-72295-V.

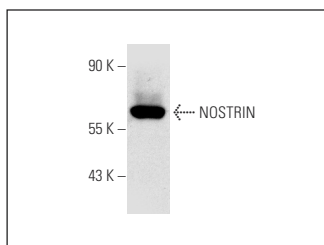
Molecular Weight of NOSTRIN: 58 kDa

Positive Controls: HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

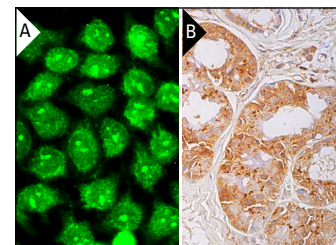
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



NOSTRIN (F-10): sc-365031. Western blot analysis of NOSTRIN expression in K-562 whole cell lysate.



NOSTRIN (F-10): sc-365031. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic and nuclear staining of glandular cells. Blocked with 0.25X UltraCruz[®] Blocking Reagent: sc-516214. Detection reagents used: m-IgGκ BP-B: sc-516142 and ImmunoCruz[®] ABC Kit: sc-516216 (B).

SELECT PRODUCT CITATIONS

- Koennecke, M., et al. 2018. Increased phosphorylation of eNOS in nasal polyps of chronic rhinosinusitis patients can be diminished by 1,8-cineol. *Nitric Oxide* 78: 89-94.
- Jalihal, A.P., et al. 2020. Multivalent proteins rapidly and reversibly phase-separate upon osmotic cell volume change. *Mol. Cell* 79: 978-990.e5.

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 for detailed protocols and support products.