SANTA CRUZ BIOTECHNOLOGY, INC.

NOSIP (K-13): sc-46425

BACKGROUND

Endothelial nitric oxide synthase (eNOS) interacting protein (NOSIP) is a modulator of eNOS activity. eNOS is an important nitric oxide (NO)-generating enzyme of the vasculature that is regulated by interactions with caveolin-1, Ca^{2+}-calmodulin, HSP 90 and NOSIP. NOSIP modulates this activity by promoting the translocation of eNOS from the plasma membrane to intracellular sites, which in turn inhibits nitric oxide (NO) synthesis. NOSIP is involved in controlling airway and vascular diameter, synthesis of NO in ciliated epithelia and mucosal secretion, and is an important protein for mucociliary and bronchial function. NOSIP is highly expressed in endothelial cells and vascularized tissue.

REFERENCES

1. Dedio, J., et al. 2001. NOSIP, a novel modulator of endothelial nitric oxide synthase activity. FASEB. J. 15: 79-89.
2. Konig, P., et al. 2002. Distribution of the novel eNOS-interacting protein NOSIP in the liver, pancreas, and gastrointestinal tract of the rat. Gastroenterology 123: 314-324.
3. Dreyer, J., et al. 2003. Spinal upregulation of the nitric oxide synthase-interacting protein NOSIP in a rat model of inflammatory pain. Neurosci. Lett. 350: 13-16.
4. Dreyer, J., et al. 2004. Nitric oxide synthase (NOS)-interacting protein interacts with neuronal NOS and regulates its distribution and activity. J. Neurosci. 24: 10454-10465.
5. Konig, P., et al. 2005. NOSIP and its interacting protein, eNOS, in the rat trachea and lung. J. Histochem. Cytochem. 53: 155-164.
6. Schleicher, M., et al. 2005. Cell cycle-regulated inactivation of endothelial NO synthase through NOSIP-dependent targeting to the cytoskeleton. Mol. Cell. Biol. 25: 8251-8258.

CHROMOSOMAL LOCATION

Genetic locus: NOSIP (human) mapping to 19q13.33; Nosip (mouse) mapping to 7 B4.

SOURCE

NOSIP (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of NOSIP 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.

Blocking peptide available for competition studies, sc-46425 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

NOSIP (K-13) is recommended for detection of NOSIP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

NOSIP (K-13) is also recommended for detection of NOSIP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for NOSIP siRNA (h): sc-45708, NOSIP siRNA (m): sc-45709, NOSIP shRNA Plasmid (h): sc-45708-SH, NOSIP shRNA Plasmid (m): sc-45709-SH, NOSIP shRNA (h) Lentiviral Particles: sc-45708-V and NOSIP shRNA (m) Lentiviral Particles: sc-45709-V.

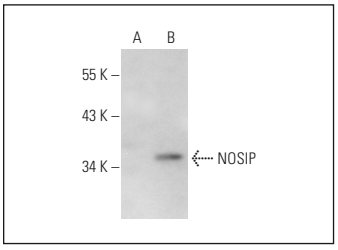
Molecular Weight of NOSIP: 34 kDa.

Positvie Controls: NOSIP (h): 293T Lysate: sc-112273.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



NOSIP (K-13): sc-46425. Western blot analysis of NOSIP expression in non-transfected: sc-117752 (**A**) and human NOSIP transfected: sc-112273 (**B**) 293T whole cell lysates.

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.