

NOSIP (h): 293T Lysate: sc-112273

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, Ca²⁺-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 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., König, P., Wohlfart, P., Schroeder, C., Kummer, W. and Müller-Esterl, W. 2001. NOSIP, a novel modulator of endothelial nitric oxide synthase activity. *FASEB J.* 15: 79-89.
2. König, P., Dedio, J., Müller-Esterl, W. and Kummer, W. 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., Hirlinger, D., Müller-Esterl, W., Oess, S. and Kuner, R. 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., Schleicher, M., Tappe, A., Schilling, K., Kuner, T., Kusumawidijaja, G., Müller-Esterl, W., Oess, S. and Kuner, R. 2004. Nitric oxide synthase (NOS)-interacting protein interacts with neuronal NOS and regulates its distribution and activity. *J. Neurosci.* 24: 10454-10465.
5. König, P., Dedio, J., Oess, S., Papadakis, T., Fischer, A., Müller-Esterl, W. and Kummer, W. 2005. NOSIP and its interacting protein, eNOS, in the rat trachea and lung. *J. Histochem. Cytochem.* 53: 155-164.
6. Schleicher, M., Brundin, F., Gross, S., Müller-Esterl, W. and Oess, S. 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.

PRODUCT

NOSIP (h): 293T Lysate represents a lysate of human NOSIP transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

NOSIP (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NOSIP antibodies. Recommended use: 10-20 µl per lane.

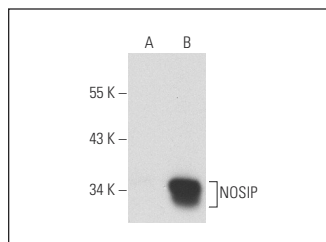
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NOSIP (B-3): sc-137118 is recommended as a positive control antibody for Western Blot analysis of enhanced human NOSIP expression in NOSIP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

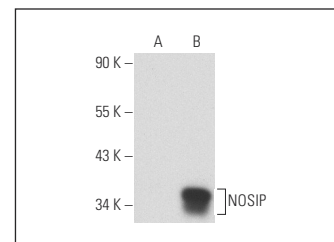
RECOMMENDED SUPPORT REAGENTS

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.

DATA



NOSIP (B-3): sc-137118. Western blot analysis of NOSIP expression in non-transfected: sc-117752 (A) and human NOSIP transfected: sc-112273 (B) 293T whole cell lysates.



NOSIP (G-6): sc-137117. Western blot analysis of NOSIP expression in non-transfected: sc-117752 (A) and human NOSIP transfected: sc-112273 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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.