

# NOSIP (C-2): sc-365363

## 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<sup>2+</sup>-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., et al. 2001. NOSIP, a novel modulator of endothelial nitric oxide synthase activity. *FASEB J.* 15: 79-89.
2. König, 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

NOSIP (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 19-41 near the N-terminus of NOSIP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NOSIP (C-2) is available conjugated to agarose (sc-365363 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365363 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365363 PE), fluorescein (sc-365363 FITC), Alexa Fluor® 488 (sc-365363 AF488), Alexa Fluor® 546 (sc-365363 AF546), Alexa Fluor® 594 (sc-365363 AF594) or Alexa Fluor® 647 (sc-365363 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365363 AF680) or Alexa Fluor® 790 (sc-365363 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365363 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## APPLICATIONS

NOSIP (C-2) is recommended for detection of NOSIP of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

NOSIP (C-2) is also recommended for detection of NOSIP in additional species, including equine, 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.

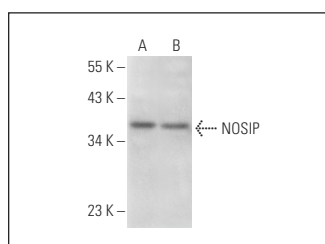
Positive Controls: NOSIP (h): 293T Lysate: sc-112273, WI-38 whole cell lysate: sc-364260 or A549 cell lysate: sc-2413.

## RECOMMENDED SUPPORT REAGENTS

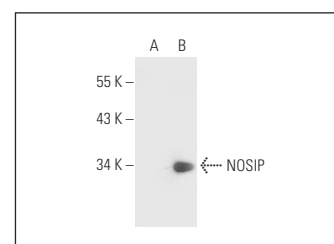
To ensure optimal results, the following support reagents are recommended:

- 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.

## DATA



NOSIP (C-2): sc-365363. Western blot analysis of NOSIP expression in WI-38 (A) and A549 (B) whole cell lysates.



NOSIP (C-2): sc-365363. Western blot analysis of NOSIP expression in non-transfected: sc-112752 (A) and human NOSIP transfected: sc-112273 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Zhou, W., et al. 2017. IL-1β induces NFκB and upregulates microRNA-372 to inhibit spinal cord injury recovery. *J. Neurophysiol.* 117: 2282-2291.

## RESEARCH USE

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