

NIPSNAP1 (H-9): sc-515197

BACKGROUND

The transient receptor potential (TRP) protein family consists of a diverse group of cation channels functioning in a variety of homeostatic and regulatory pathways. Four subfamilies exist, based on channel domain homology, not activating stimuli: C type (canonical or classical), V type (vanilloid receptor related), M type (melastatin related) and P type (PKD). NIPSNAP1 (4-nitrophenylphosphatase domain and non-neuronal SNAP25-like 1) is a 228 amino acid protein that abolishes TRPV6 currents, which facilitates calcium entry across the plasma membrane in pancreas, placenta, and to a lesser extent stomach and kidney tissue. TRPV6 membrane expression does not change in the presence of NIPSNAP1, which suggests that TRPV6 inhibition by NIPSNAP1 is independently regulated from reduced cell surface channel expression.

REFERENCES

1. Seroussi, E., et al. 1998. Characterization of the human NIPSNAP1 gene from 22q12: a member of a novel gene family. *Gene* 212: 13-20.
2. Lee, A.H., et al. 2002. Identification of a NIPSNAP homologue as host cell target for *Salmonella* virulence protein SpiC. *Cell. Microbiol.* 4: 739-750.

CHROMOSOMAL LOCATION

Genetic locus: NIPSNAP1 (human) mapping to 22q12.2; Nipsnap1 (mouse) mapping to 11 A1.

SOURCE

NIPSNAP1 (H-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 95-113 within an internal region of NIPSNAP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NIPSNAP1 (H-9) is available conjugated to agarose (sc-515197 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515197 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515197 PE), fluorescein (sc-515197 FITC), Alexa Fluor® 488 (sc-515197 AF488), Alexa Fluor® 546 (sc-515197 AF546), Alexa Fluor® 594 (sc-515197 AF594) or Alexa Fluor® 647 (sc-515197 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515197 AF680) or Alexa Fluor® 790 (sc-515197 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515197 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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.

APPLICATIONS

NIPSNAP1 (H-9) is recommended for detection of NIPSNAP1 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).

Suitable for use as control antibody for NIPSNAP1 siRNA (h): sc-75923, NIPSNAP1 siRNA (m): sc-149978, NIPSNAP1 shRNA Plasmid (h): sc-75923-SH, NIPSNAP1 shRNA Plasmid (m): sc-149978-SH, NIPSNAP1 shRNA (h) Lentiviral Particles: sc-75923-V and NIPSNAP1 shRNA (m) Lentiviral Particles: sc-149978-V.

Molecular Weight of NIPSNAP1: 34 kDa.

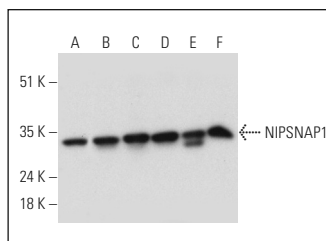
Molecular Weight of NIPSNAP1 truncated form: 29 kDa.

Positive Controls: rat liver extract: sc-2395, human liver extract: sc-363766 or human kidney extract: sc-363764.

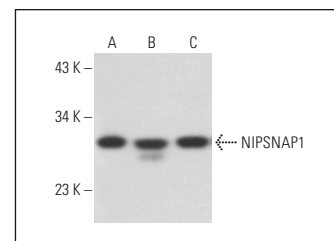
RECOMMENDED SUPPORT REAGENTS

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



NIPSNAP1 (H-9): sc-515197. Western blot analysis of NIPSNAP1 expression in c4 (A) and AN3 CA (B) whole cell lysates and rat liver (C), human liver (D), human kidney (E) and human brain (F) tissue extracts.



NIPSNAP1 (H-9): sc-515197. Western blot analysis of NIPSNAP1 expression in KNRK (A), PC-12 (B) and A549 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Saha, B., et al. 2022. Interactomic analysis reveals a homeostatic role for the HIV restriction factor TRIM5α in mitophagy. *Cell Rep.* 39: 110797.

PROTOCOLS

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

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