

SNX16 (C-11): sc-271260

BACKGROUND

Sorting nexin (SNX) proteins are members of a large family of hydrophilic proteins that interact with a variety of receptor types, contain a characteristic phox homology (PX) domain and play a role in intracellular trafficking. Viral infection by a nucleocapsid is initiated when it is transported to late endosomes and, ultimately, to the cytoplasm. This process depends on the late endosomal lipid lysobisphosphatidic acid (LBPA) and its putative effector Alix/AIP1, and is regulated by PtdIns3P (phosphatidylinositol-3-phosphate) signaling via SNX16, its binding protein. Overexpression of SNX16 increases the rate of EGF-induced EGFR degradation and prevents EGF-induced upmodulation of ERK and serum response element (SRE). Mutation in the PX domain eradicates the inhibitory effect of SNX16 on EGF-induced activation of ERK and SRE, suggesting that SNX16 directs the sorting of EGFR to the endosomal compartment, thus regulating EGF-induced cell signaling.

REFERENCES

- Hanson, B.J. and Hong, W. 2003. Evidence for a role of SNX16 in regulating traffic between the early and later endosomal compartments. *J. Biol. Chem.* 278: 34617-34630.
- Choi, J.H., et al. 2004. Sorting nexin 16 regulates EGF receptor trafficking by phosphatidylinositol-3-phosphate interaction with the phox domain. *J. Cell Sci.* 117: 4209-4218.
- Watahiki, A., et al. 2004. Libraries enriched for alternatively spliced exons reveal splicing patterns in melanocytes and melanomas. *Nat. Methods* 1: 233-239.

CHROMOSOMAL LOCATION

Genetic locus: SNX16 (human) mapping to 8q21.13; Snx16 (mouse) mapping to 3 A1.

SOURCE

SNX16 (C-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 249-281 near the C-terminus of SNX16 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.

SNX16 (C-11) is available conjugated to agarose (sc-271260 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271260 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271260 PE), fluorescein (sc-271260 FITC), Alexa Fluor® 488 (sc-271260 AF488), Alexa Fluor® 546 (sc-271260 AF546), Alexa Fluor® 594 (sc-271260 AF594) or Alexa Fluor® 647 (sc-271260 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271260 AF680) or Alexa Fluor® 790 (sc-271260 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271260 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

SNX16 (C-11) is recommended for detection of SNX16 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 SNX16 siRNA (h): sc-61585, SNX16 siRNA (m): sc-61586, SNX16 shRNA Plasmid (h): sc-61585-SH, SNX16 shRNA Plasmid (m): sc-61586-SH, SNX16 shRNA (h) Lentiviral Particles: sc-61585-V and SNX16 shRNA (m) Lentiviral Particles: sc-61586-V.

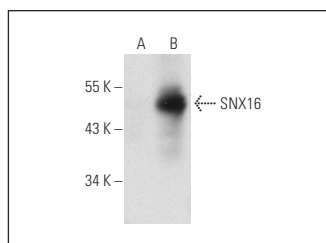
Molecular Weight of SNX16: 39 kDa.

Positive Controls: SNX16 (h): 293T Lysate: sc-115169, mouse heart extract: sc-2254 or SNX16 (m): 293T Lysate: sc-123693.

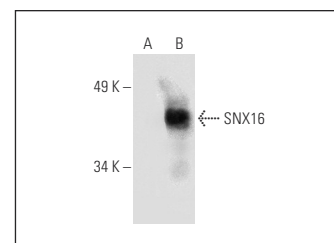
RECOMMENDED SUPPORT REAGENTS

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



SNX16 (C-11): sc-271260. Western blot analysis of SNX16 expression in non-transfected: sc-117752 (A) and human SNX16 transfected: sc-115169 (B) 293T whole cell lysates.



SNX16 (C-11): sc-271260. Western blot analysis of SNX16 expression in non-transfected: sc-117752 (A) and mouse SNX16 transfected: sc-123693 (B) 293T whole cell lysates.

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.