

# SNX1 (B-8): sc-376376

## BACKGROUND

Sorting nexin 1 (SNX1) is a member of a large family of hydrophilic proteins that interact with a variety of receptor types and are involved in intracellular trafficking. SNX1 and the related splice variant, SNX1A, bind the epidermal growth factor (EGF) receptor, facilitate its transport to lysosome, and thereby contribute to the degradation of the receptor. SNX2 and SNX4 share a high degree of amino acid similarity with SNX1, as they all contain a characteristic phox homology (PX) domain. These proteins are all partially associated with cellular membranes, and they, likewise, associate with EGF, PDGF and Insulin receptor tyrosine kinases. These nexins are widely expressed and yet have various tissue distribution patterns. Additionally, the sorting nexins can associate with each other and with a variety of other cellular proteins, suggesting that they exist as part of multisubunit complexes. The related protein, SNX3, comprises a distinct subgroup of nexins that share less sequence similarity outside of the PX domain and have dramatically different binding affinities for the tyrosine kinase receptors.

## REFERENCES

1. Trowbridge, I.S., et al. 1993. Signal-dependent membrane protein trafficking in the endocytic pathway. *Annu. Rev. Cell Biol.* 9: 129-161.
2. Opresko, L.K., et al. 1995. Endocytosis and lysosomal targeting of epidermal growth factor receptors are mediated by distinct sequences independent of the tyrosine kinase domain. *J. Biol. Chem.* 270: 4325-4333.
3. Kurten, R.C., et al. 1996. Enhanced degradation of EGF receptors by a sorting nexin, SNX1. *Science* 272: 1008-1010.

## CHROMOSOMAL LOCATION

Genetic locus: SNX1 (human) mapping to 15q22.31; Snx1 (mouse) mapping to 9 C.

## SOURCE

SNX1 (B-8) is a mouse monoclonal antibody raised against amino acids 21-135 mapping near the N-terminus of SNX1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SNX1 (B-8) is available conjugated to agarose (sc-376376 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376376 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376376 PE), fluorescein (sc-376376 FITC), Alexa Fluor® 488 (sc-376376 AF488), Alexa Fluor® 546 (sc-376376 AF546), Alexa Fluor® 594 (sc-376376 AF594) or Alexa Fluor® 647 (sc-376376 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376376 AF680) or Alexa Fluor® 790 (sc-376376 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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

SNX1 (B-8) is recommended for detection of SNX1 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), immunohistochemistry (including paraffin-embedded sections) (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 SNX1 siRNA (h): sc-41345, SNX1 siRNA (m): sc-41346, SNX1 shRNA Plasmid (h): sc-41345-SH, SNX1 shRNA Plasmid (m): sc-41346-SH, SNX1 shRNA (h) Lentiviral Particles: sc-41345-V and SNX1 shRNA (m) Lentiviral Particles: sc-41346-V.

Molecular Weight (predicted) of SNX1: 60 kDa.

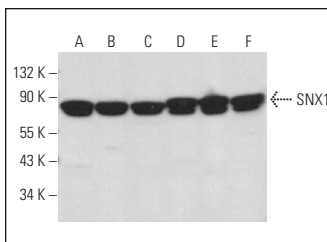
Molecular Weight (observed) of SNX1: 78 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or Caki-1 cell lysate: sc-2224.

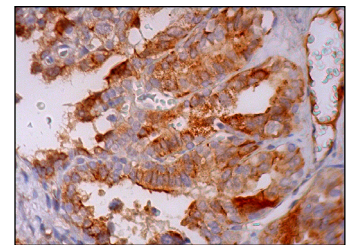
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



SNX1 (B-8): sc-376376. Western blot analysis of SNX1 expression in HeLa (A), Ramos (B), Caki-1 (C), WEHI-231 (D), WR19L (E) and C6 (F) whole cell lysates.



SNX1 (B-8): sc-376376. Immunoperoxidase staining of formalin fixed, paraffin-embedded human seminal vesicle tissue showing cytoplasmic and membrane staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Han, J., et al. 2020. Involvement of CASP9 (caspase 9) in IGF2R/CI-MPR endosomal transport. *Autophagy*. E-published.

## RESEARCH USE

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