

SNX3 (G-7): sc-376667

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.

CHROMOSOMAL LOCATION

Genetic locus: SNX3 (human) mapping to 6q21; Snx3 (mouse) mapping to 10 B2.

SOURCE

SNX3 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 122-162 near the C-terminus of SNX3 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.

SNX3 (G-7) is available conjugated to agarose (sc-376667 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376667 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376667 PE), fluorescein (sc-376667 FITC), Alexa Fluor® 488 (sc-376667 AF488), Alexa Fluor® 546 (sc-376667 AF546), Alexa Fluor® 594 (sc-376667 AF594) or Alexa Fluor® 647 (sc-376667 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376667 AF680) or Alexa Fluor® 790 (sc-376667 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376667 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

SNX3 (G-7) is recommended for detection of SNX3 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).

SNX3 (G-7) is also recommended for detection of SNX3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SNX3 siRNA (h): sc-41351, SNX3 siRNA (m): sc-41352, SNX3 shRNA Plasmid (h): sc-41351-SH, SNX3 shRNA Plasmid (m): sc-41352-SH, SNX3 shRNA (h) Lentiviral Particles: sc-41351-V and SNX3 shRNA (m) Lentiviral Particles: sc-41352-V.

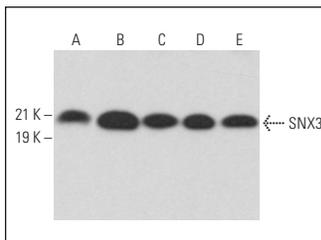
Molecular Weight of SNX3: 20 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, KNRK whole cell lysate: sc-2214 or THP-1 cell lysate: sc-2238.

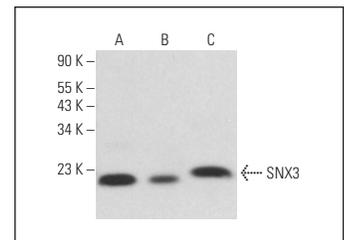
RECOMMENDED SUPPORT REAGENTS

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



SNX3 (G-7): sc-376667. Western blot analysis of SNX3 expression in HeLa (A), THP-1 (B), NIH/3T3 (C), Neuro-2A (D) and KNRK (E) whole cell lysates.



SNX3 (G-7): sc-376667. Western blot analysis of SNX3 expression in THP-1 (A), EOC 20 (B) and RAW 264.7 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Xu, S., et al. 2018. Overexpression of SNX3 decreases Amyloid-β peptide production by reducing internalization of amyloid precursor protein. *Neurodegener. Dis.* 18: 26-37.

STORAGE

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