SANTA CRUZ BIOTECHNOLOGY, INC.

SNX7 (C-1): sc-166892

BACKGROUND

Sorting nexin (SNX) proteins are members of a large family of hydrophilic PX (phospholipid-binding motif) domain-containing proteins that interact with a variety of receptor types. SNXs are widely expressed, although the tissue distribution of each SNX mRNA varies. The ability of SNXs to bind specific phospholipids, as well as their tendency to form protein-protein complexes, suggests a role for these proteins in cellular membrane trafficking and protein sorting. SNXs may also function specifically in pro-degradative sorting, internalization, endosomal recycling or simply in endosomal sorting. SNXs partially associate with cellular membranes, despite their hydrophilic nature. SNX7 is unique in that it does not have a coiled-coil region like some of the SNX family members. Mutations in the SNX7 gene have not been shown to cause any diseases.

REFERENCES

1. Worby, C.A., et al. 2002. Sorting out the cellular functions of sorting nexins. Nat. Rev. Mol. Cell Biol. 3: 919-931.
2. Orlacchio, A., et al. 2005. New locus for hereditary spastic paraplegia maps to chromosome 1p31.1-1p21.1. Ann. Neurol. 58: 423-429.
3. Carlton, J.G., et al. 2005. Sorting nexins. Curr. Biol. 15: 819-820.
4. Carlton, J., et al. 2005. Sorting nexins: unifying trends and new perspectives. Traffic 6: 75-82.
5. Jacques, C., et al. 2005. Two-step differential expression analysis reveals a new set of genes involved in thyroid oncocytic tumors. J. Clin. Endocrinol. Metab. 90: 2314-2320.

CHROMOSOMAL LOCATION

Genetic locus: SNX7 (human) mapping to 1p21.3; Snx7 (mouse) mapping to 3 G1.

SOURCE

SNX7 (C-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-40 at the N-terminus of SNX7 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

SNX7 (C-1) is available conjugated to agarose (sc-166892 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166892 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166892 PE), fluorescein (sc-166892 FITC), Alexa Fluor® 488 (sc-166892 AF488), Alexa Fluor® 546 (sc-166892 AF546), Alexa Fluor® 594 (sc-166892 AF594) or Alexa Fluor® 647 (sc-166892 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166892 AF680) or Alexa Fluor® 790 (sc-166892 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-166892 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

SNX7 (C-1) is recommended for detection of SNX7 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).

SNX7 (C-1) is also recommended for detection of SNX7 in additional species, including canine and porcine.

Suitable for use as control antibody for SNX7 siRNA (h): sc-61593, SNX7 siRNA (m): sc-61594, SNX7 shRNA Plasmid (h): sc-61593-SH, SNX7 shRNA Plasmid (m): sc-61594-SH, SNX7 shRNA (h) Lentiviral Particles: sc-61593-V and SNX7 shRNA (m) Lentiviral Particles: sc-61594-V.

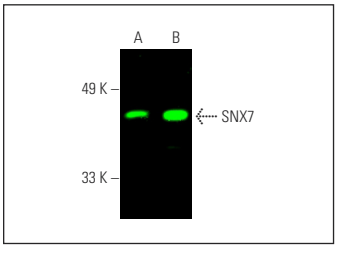
Molecular Weight of SNX7 isoforms 1-3: 45/39/52 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or SW480 cell lysate: sc-2219.

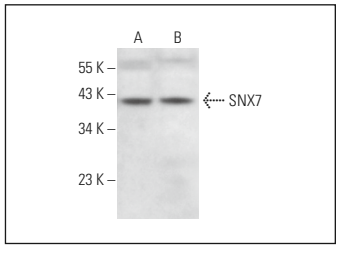
RECOMMENDED SUPPORT REAGENTS

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



SNX7 (C-1): sc-166892. Near-infrared western blot analysis of SNX7 expression in HeLa (**A**) and K-562 (**B**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.



SNX7 (C-1): sc-166892. Western blot analysis of SNX7 expression in COLO 205 (**A**) and SW480 (**B**) 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.