Syntaxin 10 (D-14): sc-131083



The Power to Question

BACKGROUND

Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain C-terminal hydrophobic domains that direct them to their respective intracellular compartments. Syntaxin 10, also known as STX10, SYN10 or hSyn10, is a 249 amino acid single-pass type IV membrane protein that localizes to the Golgi apparatus and contains one t-SNARE coiled-coil homology domain. Expressed at high levels in pancreas, heart and skeletal muscle, Syntaxin 10 interacts with VPS52 and functions to receive vesicles from either the endosome or from Golgi stacks. Syntaxin 10 exists as multiple alternatively spliced isoforms which are encoded by a gene that maps to human chromosome 19.

REFERENCES

- Tang, B.L., Low, D.Y., Tan, A.E. and Hong, W. 1998. Syntaxin 10: a member of the syntaxin family localized to the *trans*-Golgi network. Biochem. Biophys. Res. Commun. 242: 345-350.
- Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 603765. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- Liewen, H., Meinhold-Heerlein, I., Oliveira, V., Schwarzenbacher, R., Luo, G., Wadle, A., Jung, M., Pfreundschuh, M. and Stenner-Liewen, F. 2005. Characterization of the human GARP (Golgi associated retrograde protein) complex. Exp. Cell Res. 306: 24-34.
- Wang, Y., Tai, G., Lu, L., Johannes, L., Hong, W. and Tang, B.L. 2005. *Trans*-Golgi network Syntaxin 10 functions distinctly from Syntaxins 6 and 16. Mol. Membr. Biol. 22: 313-325.
- 5. Bonifacino, J.S. and Rojas, R. 2006. Retrograde transport from endosomes to the *trans*-Golgi network. Nat. Rev. Mol. Cell Biol. 7: 568-579.
- Ganley, I.G., Espinosa, E. and Pfeffer, S.R. 2008. A syntaxin 10-SNARE complex distinguishes two distinct transport routes from endosomes to the *trans*-Golgi in human cells. J. Cell Biol. 180: 159-172.

CHROMOSOMAL LOCATION

Genetic locus: STX10 (human) mapping to 19p13.2.

SOURCE

Syntaxin 10 (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Syntaxin 10 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131083 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Syntaxin 10 (D-14) is recommended for detection of All Syntaxin 10 isoforms 1 and 2 of human origin by Western Blotting (starting dilution 1:200, 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); non cross-reactive with other Syntaxin family members

Syntaxin 10 (D-14) is also recommended for detection of All Syntaxin 10 in additional species, including bovine and porcine.

Suitable for use as control antibody for Syntaxin 10 siRNA (h): sc-97252, Syntaxin 10 shRNA Plasmid (h): sc-97252-SH and Syntaxin 10 shRNA (h) Lentiviral Particles: sc-97252-V.

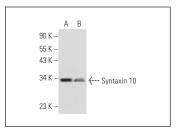
Molecular Weight of Syntaxin 10: 28 kDa.

Positive Controls: MDA-MB-435S whole cell lysate: sc-364184 or MIA PaCa-2 cell lysate: sc-2285.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Syntaxin 10 (D-14): sc-131083. Western blot analysis of Syntaxin 10 expression in MDA-MB-435S (**A**) and MIA PaCa-2 (**B**) whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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