Syntaxin 2 (N-13): sc-69018



The Power to Question

BACKGROUND

Correct vesicular transport is essential to the survival of eukaryotic cells. This process is determined by specific pairing of vesicle-associated SNAREs (v-SNAREs) with those on the target membrane (t-SNAREs). This complex then recruits soluble NSF attachment proteins (SNAPs) and N-ethylmaleimide-sensitive factor (NSF) to form the highly stable SNAP receptor (SNARE) complex. The formation of a SNARE complex pulls the vesicle and target membrane together and may provide the energy to drive fusion of the lipid bilayers. Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain carboxy-terminal hydrophobic domains that direct themselves to their respective intracellular compartments. Syntaxin 2 is a t-SNARE that localizes to the apical plasma membrane and intracellular vesicular structures. Syntaxin 2, along with SNAP-23, is required for regulated surfactant secretion.

REFERENCES

- 1. Elferink, L.A., et al. 1993. A role for Synapto-tagmin (p65) in regulated exocytosis. Cell 72: 153-159.
- Bennett, M.K., et al., 1993. The Syntaxin family of vesicular transport receptors. Cell 74: 863-873.
- 3. Yamaguchi, K. and Akagawa, K. 1994. Exocytosis relating proteins in the nervous system. Neurosci. Res. 20: 289-292.
- 4. Hayashi, T., et al. 1994. Synaptic vesicle membrane fusion complex: action of clostridial neurotoxins on assembly. EMBO J. 13: 5051-5061.
- Edelmann, L., et al. 1995. Synaptobrevin binding to synaptophysin: a potential mechanism for controlling the exocytosis fusion machine. EMBO J. 14: 224-231.
- 6. McMahon, H.T. and Sudhof, T.C. 1995. Synaptic core complex of synaptobrevin, Syntaxin, and SNAP25 forms high affinity α -SNAP binding site. J. Biol. Chem. 270: 2213-2217.
- Lin, R.C. and Scheller, R.H. 1997. Structural organization of the synaptic exocytosis core complex. Neuron 19: 1087-1094.

CHROMOSOMAL LOCATION

Genetic locus: EPIM (human) mapping to 12q24.33; Epim (mouse) mapping to 5 G1.3.

SOURCE

Syntaxin 2 (N-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal cytoplasmic domain of Syntaxin 2 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-69018 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Syntaxin 2 (N-13) is recommended for detection of Syntaxin 2 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

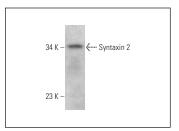
Syntaxin 2 (N-13) is also recommended for detection of syntaxin 2 in additional species, including bovine and porcine.

Suitable for use as control antibody for Syntaxin 2 siRNA (h): sc-41326, Syntaxin 2 siRNA (m): sc-41327, Syntaxin 2 shRNA Plasmid (h): sc-41326-SH, Syntaxin 2 shRNA Plasmid (m): sc-41327-SH, Syntaxin 2 shRNA (h) Lentiviral Particles: sc-41326-V and Syntaxin 2 shRNA (m) Lentiviral Particles: sc-41327-V.

Molecular Weight of Syntaxin 2: 35 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185.

DATA



Syntaxin 2 (N-13): sc-69018. Western blot analysis of Syntaxin 2 expression in Neuro-2A whole cell lysate.

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 or our catalog for detailed protocols and support products.



Try **Syntaxin 2 (A-12):** sc-**514642**, our highly recommended monoclonal alternative to Syntaxin 2 (N-13).

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