

# Syntaxin 2 (S-16): sc-69019

## 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

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2. 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.
5. Edelman, 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  $\alpha$ -SNAP binding site. *J. Biol. Chem.* 270: 2213-2217.
7. 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 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Syntaxin 2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-69019 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Syntaxin 2 (S-16) is recommended for detection of Syntaxin 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

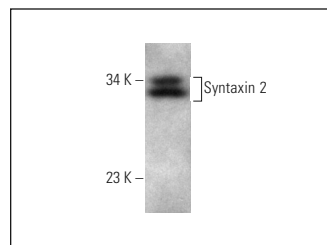
Syntaxin 2 (S-16) is also recommended for detection of syntaxin 2 in additional species, including equine, canine, bovine and porcine.

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 (S-16): sc-69019. 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](http://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 (S-16).