

Syntaphilin (N-16): sc-10639

BACKGROUND

Syntaxins are categorized as proteins that anchor themselves to the cytoplasmic surfaces of cellular membranes. Syntaxins have been shown to bind to various proteins involved in exocytosis, including VAMPs (vesicle-associated membrane proteins), NSF (N-ethylmaleimide-sensitive factor), SNAP 25, SNAPs (soluble NSF attachment proteins) and Synaptotagmin. Syntaphilin competes with SNAP 25 for Syntaxin 1 binding. By absorbing free Syntaxin 1, Syntaphilin can inhibit the assembly of the SNARE complex, and thereby regulate Synaptic vesicle exocytosis.

REFERENCES

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2. Elferink, L.A., et al. 1993. A role for Synaptotagmin (p65) in regulated exocytosis. *Cell* 72: 153-159.
3. Yamaguchi, K., et al. 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., et al. 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., et al. 1997. Structural organization of the Synaptic exocytosis core complex. *Neuron* 19: 1087-1094.
8. Barnard, R.J., et al. 1997. Stimulation of NSF ATPase activity by α -SNAP is required for SNARE complex disassembly and exocytosis. *J. Cell Biol.* 139: 875-883.

CHROMOSOMAL LOCATION

Genetic locus: SNPH (human) mapping to 20p13.

SOURCE

Syntaphilin (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Syntaphilin of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10639 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

Syntaphilin (N-16) is recommended for detection of Syntaphilin of 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).

Suitable for use as control antibody for Syntaphilin siRNA (h): sc-41369, Syntaphilin shRNA Plasmid (h): sc-41369-SH and Syntaphilin shRNA (h) Lentiviral Particles: sc-41369-V.

Molecular Weight (predicted) of Syntaphilin isoforms: 54/58 kDa.

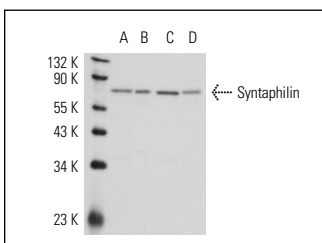
Molecular Weight (observed) of Syntaphilin: 70 kDa.

Positive Controls: T98G cell lysate: sc-2294, IMR-32 cell lysate: sc-2409 or TE671 cell lysate: sc-2416.

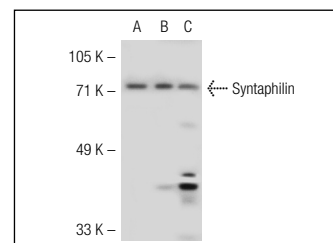
RECOMMENDED SECONDARY REAGENTS

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



Syntaphilin (N-16): sc-10639. Western blot analysis of Syntaphilin expression in T98G (A), IMR-32 (B), H4 (C) and TE671 (D) whole cell lysates.



Syntaphilin (N-16): sc-10639. Western blot analysis of Syntaphilin expression in non-transfected 293T: sc-117752 (A), human Syntaphilin transfected 293T: sc-115433 (B) and HeLa (C) whole cell lysates.

RESEARCH USE

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



Try **Syntaphilin (F-4): sc-365606**, our highly recommended monoclonal alternative to Syntaphilin (N-16).