

β-SNAP (E-13): sc-98026

BACKGROUND

Syntaxins were originally thought to be docking proteins, but have more recently been categorized as anchoring 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 (synaptosomal-associated protein of 25 kDa), SNAPs (soluble NSF attachment proteins) and synaptotagmin. VAMPs (also designated synaptobrevins), including VAMP-1 and VAMP-2, and synaptotagmin, a protein that may function as an inhibitor of exocytosis, are vesicular proteins. SNAPs, including α-SNAP, β-SNAP and γ-SNAP, are cytoplasmic proteins that bind to a membrane receptor complex composed of VAMP, SNAP 25 and syntaxin. While α-SNAP and γ-SNAP, are found in a wide range of tissues, β-SNAP is expressed only in the brain. The gene encoding β-SNAP is localized to chromosome 20p11.21.

REFERENCES

1. Elferink, L.A., et al. 1993. A role for synaptotagmin (p65) in regulated exocytosis. *Cell* 72: 153-159.
2. Bennett, M.K., et al. 1993. The syntaxin family of vesicular transport receptors. *Cell* 74: 863-873.
3. Whiteheart, S.W., et al. 1993. SNAP family of NSF attachment proteins includes a brain-specific isoform. *Nature* 362: 353-355.
4. Yamaguchi, K., et al. 1994. Exocytosis relating proteins in the nervous system. *Neurosci. Res.* 20: 289-292.
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 α-SNAP binding site. *J. Biol. Chem.* 270: 2213-2217.

CHROMOSOMAL LOCATION

Genetic locus: NAPB (human) mapping to 20p11.21; Napb (mouse) mapping to 2 G3.

SOURCE

β-SNAP (E-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of β-SNAP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-98026 P, (100 µg 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

β-SNAP (E-13) is recommended for detection of β-SNAP of mouse, rat and 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).

β-SNAP (E-13) is also recommended for detection of β-SNAP in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for β-SNAP siRNA (h): sc-41298, β-SNAP siRNA (m): sc-41299, β-SNAP shRNA Plasmid (h): sc-41298-SH, β-SNAP shRNA Plasmid (m): sc-41299-SH, β-SNAP shRNA (h) Lentiviral Particles: sc-41298-V and β-SNAP shRNA (m) Lentiviral Particles: sc-41299-V.

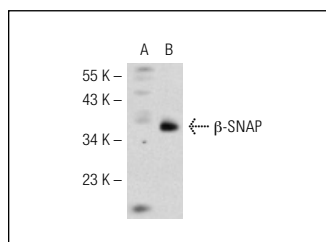
Molecular Weight of β-SNAP: 34 kDa.

Positive Controls: β-SNAP (m): 293T Lysate: sc-127559, β-SNAP (m2): 293T Lysate: sc-127560 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



β-SNAP (E-13): sc-98026. Western blot analysis of β-SNAP expression in non-transfected: sc-117752 (A) and mouse β-SNAP transfected: sc-127560 (B) 293T 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.