

α -SNAP (m): 293T Lysate: sc-126355

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 25kDa), 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 - and γ -SNAP, are cytoplasmic proteins that bind to a membrane receptor complex composed of VAMP, SNAP 25 and Syntaxin. SNAPs mediate the membrane binding of NSF, which is essential for membrane fusion reactions. An additional protein, designated synaptophysin, may regulate exocytosis by competing with SNAP 25 and Syntaxins for VAMP binding.

REFERENCES

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2. Graham, M.E. and Burgoyne, R.D. 2000. Comparison of cysteine string protein (CSP) and mutant α -SNAP overexpression reveals a role for CSP in late steps of membrane fusion in dense-core granule exocytosis in adrenal chromaffin cells. *J. Neurosci.* 20: 1281-1289.
3. Wang, L., et al. 2000. The docking of primed vacuoles can be reversibly arrested by excess Sec17P (α -SNAP). *J. Biol. Chem.* 275: 22862-22867.
4. Scales, S.J., et al. 2001. The ionic layer is required for efficient dissociation of the SNARE complex by α -SNAP and NSF. *Proc. Natl. Acad. Sci. USA* 98: 14262-14267.
5. Marz, K.E., et al. 2003. Defining the SNARE complex binding surface of α -SNAP: implications for SNARE complex disassembly. *J. Biol. Chem.* 278: 27000-27008.
6. Chae, T.H., et al. 2004. The hyh mutation uncovers roles for α -SNAP in apical protein localization and control of neural cell fate. *Nat. Genet.* 36: 264-270.
7. Beites, C.L., et al. 2005. The Septin Sept5/CDCrel-1 competes with α -SNAP for binding to the SNARE complex. *Biochem. J.* 385: 347-353.
8. Tomes, C.N., et al. 2005. α -SNAP and NSF are required in a priming step during reaction. *Mol. Hum. Reprod.* 11: 43-51.
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CHROMOSOMAL LOCATION

Genetic locus: Napa (mouse) mapping to 7 A2.

PRODUCT

α -SNAP (m): 293T Lysate represents a lysate of mouse α -SNAP transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

α -SNAP (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive α -SNAP antibodies. Recommended use: 10-20 μ l per lane.

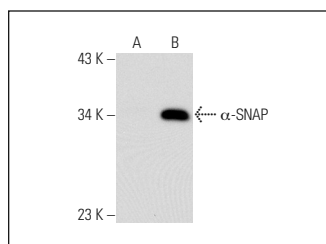
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

α/β -SNAP (G-3): sc-48349 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse α -SNAP expression in α -SNAP transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

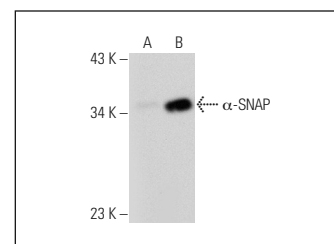
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



α/β -SNAP (G-3): sc-48349. Western blot analysis of α -SNAP expression in non-transfected: sc-117752 (A) and mouse α -SNAP transfected: sc-126355 (B) 293T whole cell lysates.



α -SNAP (4E4): sc-58218. Western blot analysis of α -SNAP expression in non-transfected: sc-117752 (A) and mouse α -SNAP transfected: sc-126355 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.