

# SNAP 25 (h2): 293 Lysate: sc-129798

## BACKGROUND

Syntaxins were originally thought to be docking proteins, but have now 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, 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  $\alpha$ - and  $\gamma$ -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. 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.
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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 SNAP 25 forms high affinity  $\alpha$ -SNAP binding site. *J. Biol. Chem.* 270: 22123-22127.
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8. Barnard, R.J., et al. 1997. Stimulation of NSF ATPase activity by  $\alpha$ -SNAP is required for SNARE complex disassembly and exocytosis. *J. Cell Biol.* 139: 875-883.
9. Bailey, J.A. and Lahiri, D.K. 2006. Neuronal differentiation is accompanied by increased levels of SNAP 25 protein in fetal rat primary cortical neurons: implications in neuronal plasticity and Alzheimer's disease. *Ann. N.Y. Acad. Sci.* 1086: 54-65.

## CHROMOSOMAL LOCATION

Genetic locus: SNAP25 (human) mapping to 20p12.2.

## PRODUCT

SNAP 25 (h2): 293 Lysate represents a lysate of human SNAP 25 transfected 293 cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## APPLICATIONS

SNAP 25 (h2): 293 Lysate is suitable as a Western Blotting positive control for human reactive SNAP 25 antibodies. Recommended use: 10-20  $\mu$ l per lane.

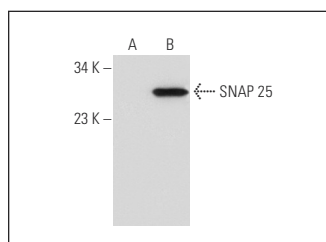
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

SNAP 25 (4E203): sc-73044 is recommended as a positive control antibody for Western Blot analysis of enhanced human SNAP 25 expression in SNAP 25 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

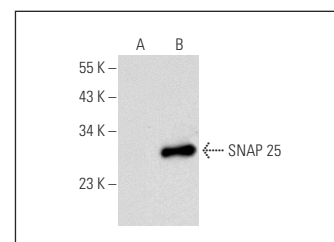
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



SNAP 25 (4E203): sc-73044. Western blot analysis of SNAP 25 expression in non-transfected: sc-110760 (A) and human SNAP 25 transfected: sc-129798 (B) 293 whole cell lysates.



SNAP 25 (20): sc-136267. Western blot analysis of SNAP 25 expression in non-transfected: sc-110760 (A) and human SNAP 25 transfected: sc-129798 (B) 293 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](http://www.scbt.com) for detailed protocols and support products.