

SNAP 23 (h): 293 Lysate: sc-110562

BACKGROUND

In eukaryotic cells, the Golgi apparatus receives newly synthesized proteins from the endoplasmic reticulum and delivers them after covalent modification to their destination in the cell. For membrane-directed proteins this process is believed to be carried out via vesicular transport. Correct vesicular transport 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. A SNAP 25 related t-SNARE protein, SNAP 23, is required for exocytosis, suggesting that SNAP 23 may play an important role in membrane fusion events. The human SNAP 23 gene, which maps to chromosome 15q15.1, encodes two SNAP 23 isoforms, SNAP 23A and SNAP 23B. SNAP 23B is identical to SNAP 23A, but lacks 53 amino acid residues, from 90 to 142. SNAP 23 is ubiquitously expressed and is an important regulator of transport vesicle docking and fusion in all mammalian cells.

REFERENCES

1. Ravichandran, V., Chawla, A. and Roche, P.A. 1996. Identification of a novel syntaxin- and synaptobrevin/VAMP-binding protein, SNAP 23, expressed in non-neuronal tissues. *J. Biol. Chem.* 271: 13300-13333.
2. Nagahama, M., Orci, L., Ravazzola, M., Amherdt, M., Lacomis, L., Tempst, P., Rothman, J.E. and Sollner, T.H. 1996. A v-SNARE implicated in intra-Golgi transport. *J. Cell Biol.* 133: 507-516.
3. Lowe, S.L., Peter, F., Subramaniam, V.N., Wong, S.H. and Hong, W. 1997. A SNARE involved in protein transport through the Golgi apparatus. *Nature* 389: 881-884.
4. Mollinedo, F. and Lazo, P.A. 1997. Identification of two isoforms of the vesicle-membrane fusion protein SNAP 23 in human neutrophils and HL-60 cells. *Biochem. Biophys. Res. Commun.* 231: 808-812.
5. Guo, Z., Turner, C. and Castle, D. 1998. Relocation of the t-SNARE SNAP 23 from lamellipodia-like cell surface projections regulates compound exocytosis in mast cells. *Cell* 94: 537-548.
6. Bentz, J. and Mittal, A. 2000. Deployment of membrane fusion protein domains during fusion. *Cell Biol. Int.* 24: 819-838.

CHROMOSOMAL LOCATION

Genetic locus: SNAP23 (human) mapping to 15q15.1.

PRODUCT

SNAP 23 (h): 293 Lysate represents a lysate of human SNAP 23 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

SNAP 23 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive SNAP 23 antibodies.

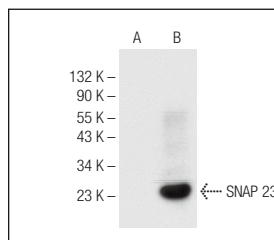
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

SNAP 23 (D-11): sc-374215 is recommended as a positive control antibody for Western Blot analysis of enhanced human SNAP 23 expression in SNAP 23 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

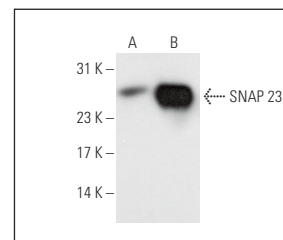
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



SNAP 23 (D-11): sc-374215. Western blot analysis of SNAP 23 expression in non-transfected: sc-110760 (A) and human SNAP 23 transfected: sc-110562 (B) 293 whole cell lysates.



SNAP 23 (A-5): sc-166244. Western blot analysis of SNAP 23 expression in non-transfected: sc-110760 (A) and human SNAP 23 transfected: sc-110562 (B) 293 whole cell lysates.

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.