

v-SNARE Vti1a (m): 293T Lysate: sc-124527

BACKGROUND

Correct vesicular transport is essential to the survival of eukaryotic cells. This process 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. V-SNARE Vti1a (vesicle transport through interaction with t-SNAREs homolog 1A), also known as vesicle transport v-SNARE protein Vti1-like 2, is a 203 amino acid protein that forms a SNARE complex with proteins such as VAMP-3, TI-VAMP, Syntaxin 7, Syntaxin 8 and Syntaxin 10. Levels of v-SNARE Vti1a and Glut4 are decreased with Insulin treatment. Knockdown of v-SNARE Vti1a mRNA inhibits adiponectin secretion and Insulin-stimulated deoxyglucose uptake, suggesting that it may regulate Glut4 and Acrp30 trafficking in adipocytes.

REFERENCES

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4. Bose, A., et al. 2005. The v-SNARE Vti1a regulates Insulin-stimulated glucose transport and Acrp30 secretion in 3T3-L1 adipocytes. *J. Biol. Chem.* 280: 36946-36951.
5. Wang, Y. and Tang, B.L. 2006. SNAREs in neurons—beyond synaptic vesicle exocytosis. *Mol. Membr. Biol.* 23: 377-384.
6. Ganley, I.G., et al. 2008. A Syntaxin 10-SNARE complex distinguishes two distinct transport routes from endosomes to the *trans*-Golgi in human cells. *J. Cell Biol.* 180: 159-172.
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CHROMOSOMAL LOCATION

Genetic locus: VTI1A (human) mapping to 10q25.2.

PRODUCT

v-SNARE Vti1a (m): 293T Lysate represents a lysate of mouse v-SNARE Vti1a transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

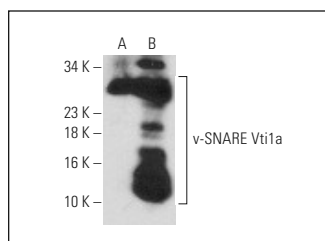
APPLICATIONS

v-SNARE Vti1a (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive v-SNARE Vti1a antibodies. Recommended use: 10-20 µl per lane.

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

v-SNARE Vti1a (45): sc-136117 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse v-SNARE Vti1a expression in v-SNARE Vti1a transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



v-SNARE Vti1a (45): sc-136117. Western blot analysis of v-SNARE Vti1a expression in non-transfected: sc-117752 (A) and mouse v-SNARE Vti1a transfected: sc-124527 (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.