

# Syntaxin 16 (V-14): sc-11275

## 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. Syntaxins, a family of proteins involved in the fusion of synaptic vesicles with the plasma membrane, display broad tissue distribution and contain carboxy-terminal hydrophobic domains that direct themselves to their respective intracellular compartments. Syntaxin 16 is specifically required for, and restricted to, the retrograde transport pathway that allows proteins and lipids to leave the endocytic pathway to reach other intracellular compartments, such as *trans*-Golgi network (TGN)/Golgi membranes, the endoplasmic reticulum and, in some instances, the cytosol.

## REFERENCES

- McNew, J.A., Sogaard, M., Lampen, N.M., Machida, S., Ye, R.R., Lacomis, L., Tempst, P., Rothman, J.E. and Sollner, T.H. 1997. Ykt6p, a prenylated SNARE essential for endoplasmic reticulum-Golgi transport. *J. Biol. Chem.* 272: 17776-17783.
- Fischer von Mollard, G. and Stevens, T.H. 1998. A human homolog can functionally replace the yeast vesicle-associated SNARE Vti1p in two vesicle transport pathways. *J. Biol. Chem.* 273: 2624-2630.
- Catchpoole, D.R. and Wanjin, H. 1999. Characterization of the sequence and expression of a Ykt6 prenylated SNARE from rat. *DNA Cell Biol.* 18: 141-145.
- Cao, X. and Barlowe, C. 2000. Asymmetric requirements for a Rab GTPase and SNARE proteins in fusion of COPII vesicles with acceptor membranes. *J. Cell Biol.* 149: 55-66.
- Tsui, M.M. and Banfield, D.K. 2000. Yeast Golgi SNARE interactions are promiscuous. *J. Cell Sci.* 113: 145-152.

## CHROMOSOMAL LOCATION

Genetic locus: STX16 (human) mapping to 20q13.32; Stx16 (mouse) mapping to 2 H4.

## SOURCE

Syntaxin 16 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Syntaxin 16 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-11275 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Syntaxin 16 (V-14) is recommended for detection of Syntaxin 16 isoforms A and B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Syntaxin 16 (V-14) is also recommended for detection of Syntaxin 16 isoforms A and B in additional species, including avian.

Suitable for use as control antibody for Syntaxin 16 siRNA (h): sc-41336, Syntaxin 16 siRNA (m): sc-41337, Syntaxin 16 shRNA Plasmid (h): sc-41336-SH, Syntaxin 16 shRNA Plasmid (m): sc-41337-SH, Syntaxin 16 shRNA (h) Lentiviral Particles: sc-41336-V and Syntaxin 16 shRNA (m) Lentiviral Particles: sc-41337-V.

Molecular Weight of Syntaxin 16: 37 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



Syntaxin 16 (V-14): sc-11275. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.