

v-SNARE Vti1p (D-19): sc-11271

BACKGROUND

Membrane traffic in eukaryotic cells requires the interaction of a vesicle-associated soluble N-ethylmaleimide-sensitive fusion (NSF) attachment protein receptor (v-SNARE) on transport vesicles with a SNARE on the target membrane (t-SNARE). Both v- and t-SNAREs are compartment-specific and bind each other directly and specifically. The v-SNAREs Ykt6p and Vti1p are involved in ER-Golgi and intra-Golgi membrane trafficking. For v-SNARE Ykt6p, membrane interaction is mediated through a cysteine/aliphatic/aliphatic/methionine or histidine (CAAX) C-terminal motif, a consensus sequence involved in prenylated membrane anchoring. The v-SNARE Vti1p interacts with the prevacuolar t-SNARE Pep12p in Golgi prevacuolar transport and with the *cis*-Golgi t-SNARE Sed5p in traffic to the *cis*-Golgi.

REFERENCES

1. McNew, J.A., et al. 1997. Ykt6p, a prenylated SNARE essential for endoplasmic reticulum-Golgi transport. *J. Biol. Chem.* 272: 17776-17783.
2. Stevens, T.H., et al. 1998. A human homolog can functionally replace the yeast vesicle-associated SNARE Vti1p in two vesicle transport pathways. *J. Biol. Chem.* 273: 2624-2630.
3. 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.
4. 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.
5. Tsui, M.M. and Banfield, D.K. 2000. Yeast Golgi SNARE interactions are promiscuous. *J. Cell Sci.* 113: 145-152.

CHROMOSOMAL LOCATION

Genetic locus: VTI1 (human) mapping to 14q24.1; Vti1 (mouse) mapping to 12 C3.

SOURCE

v-SNARE Vti1p (D-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of v-SNARE Vti1p 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-11271 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

v-SNARE Vti1p (D-19) is recommended for detection of v-SNARE Vti1p 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

v-SNARE Vti1p (D-19) is also recommended for detection of v-SNARE Vti1p in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for v-SNARE Vti1p siRNA (h): sc-41340, v-SNARE Vti1p siRNA (m): sc-41341, v-SNARE Vti1p shRNA Plasmid (h): sc-41340-SH, v-SNARE Vti1p shRNA Plasmid (m): sc-41341-SH, v-SNARE Vti1p shRNA (h) Lentiviral Particles: sc-41340-V and v-SNARE Vti1p shRNA (m) Lentiviral Particles: sc-41341-V.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.