

# TI-VAMP (N-20): sc-32592

## BACKGROUND

Syntaxins were originally thought to be docking proteins, but have more recently 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, also designated synaptobrevins), NSF (N-ethylmaleimide-sensitive factor), SNAP 25 (synaptosomal-associated protein 25), SNAPs (soluble NSF attachment proteins) and synaptotagmin. Exocytotic vesicles are inserted into the plasma membrane by exocytosis and retrieved by endocytosis. VAMPs are vesicular factors that are important components of the machinery controlling docking and/or fusion of secretory vesicles with their target membrane. Tetanus insensitive VAMP (TI-VAMP) is a type IV membrane protein that is widely expressed. TI-VAMP and cellubrevin form a SNARE complex at the apical plasma membrane. TI-VAMP is insensitive to clostridial neurotoxins.

## REFERENCES

1. D'Esposito, M., et al. 1996. A synaptobrevin-like gene in the Xq28 pseudoautosomal region undergoes X inactivation. *Nat. Genet.* 13: 227-229.
2. Galli, T., et al. 1998. A novel tetanus neurotoxin-insensitive vesicle-associated membrane protein in SNARE complexes of the apical plasma membrane of epithelial cells. *Mol. Biol. Cell* 9: 1437-1448.
3. Advani, R.J., et al. 1999. VAMP-7 mediates vesicular transport from endosomes to lysosomes. *J. Cell Biol.* 146: 765-776.
4. Matarazzo, M.R., et al. 1999. Human and mouse SYBL1 gene structure and expression. *Gene* 240: 233-238.
5. Antonin, W., et al. 2000. A SNARE complex mediating fusion of late endosomes defines conserved properties of SNARE structure and function. *EMBO J.* 19: 6453-6464.
6. Ward, D.M., et al. 2000. Syntaxin 7 and VAMP-7 are soluble N-ethylmaleimide-sensitive factor attachment protein receptors required for late endosome-lysosome and homotypic lysosome fusion in alveolar macrophages. *Mol. Biol. Cell* 11: 2327-2333.
7. Matarazzo, M.R., et al. 2002. Allelic inactivation of the pseudoautosomal gene SYBL1 is controlled by epigenetic mechanisms common to the X and Y chromosomes. *Hum. Mol. Genet.* 11: 3191-3198.

## CHROMOSOMAL LOCATION

Genetic locus: VAMP7 (human) mapping to Xq28/Yq12; Vamp7 (mouse) mapping to X.

## SOURCE

TI-VAMP (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TI-VAMP of human origin.

## STORAGE

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

## 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-32592 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TI-VAMP (N-20) is recommended for detection of TI-VAMP 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).

TI-VAMP (N-20) is also recommended for detection of TI-VAMP in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TI-VAMP siRNA (h): sc-44606, TI-VAMP siRNA (m): sc-44607, TI-VAMP shRNA Plasmid (h): sc-44606-SH, TI-VAMP shRNA Plasmid (m): sc-44607-SH, TI-VAMP shRNA (h) Lentiviral Particles: sc-44606-V and TI-VAMP shRNA (m) Lentiviral Particles: sc-44607-V.

Molecular Weight of TI-VAMP isoforms: 20/25/30 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, IMR-32 cell lysate: sc-2409 or HeLa whole cell lysate: sc-2200.

## 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.

## SELECT PRODUCT CITATIONS

1. Chat, S., et al. 2011. Characterisation of the potential SNARE proteins relevant to milk product release by mouse mammary epithelial cells. *Eur. J. Cell Biol.* 90: 401-413.

## RESEARCH USE

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



Try **TI-VAMP (E-12): sc-166394**, our highly recommended monoclonal alternative to TI-VAMP (N-20).