



Pep12 (yN-17): sc-23726

BACKGROUND

The syntaxin family of integral membrane proteins functions as receptors for transport vesicles. Different isoforms of this family localize to various membranes throughout the cell. The Pep12 protein of *Saccharomyces cerevisiae* is a multifunctional endosomal syntaxin that is required for all known trafficking pathways into the yeast prevacuolar compartment. Specifically, Pep12 acts as a target membrane receptor (t-SNARE) for vesicular intermediates traveling between the Golgi apparatus and the vacuole. After transport to the prevacuolar compartment, where vacuolar enzymes are seen on their way to the vacuole, endocytic content is delivered to the late endosome and on to the vacuole, both of which are devoid of Pep12. Vam3, another syntaxin-related protein, acts either as a bypass suppressor or by functionally replacing Pep12 at an endosomal, prevacuolar compartment. The transmembrane domain of Pep12 performs different roles in the prevacuolar and vacuolar SNARE complexes.

REFERENCES

1. Bassham, D.C., et al. 1995. An *Arabidopsis* syntaxin homologue isolated by functional complementation of a yeast Pep12 mutant. *Proc. Natl. Acad. Sci. U.S.A.* 92: 7262-7266.
2. Gotte, M., and Gallwitz, D. 1997. High expression of the yeast syntaxin-related Vam3 protein suppresses the protein transport defects of a Pep12 null mutant. *FEBS Lett.* 411: 48-52.
3. Gerrard, S.R., Levi, B.P., and Stevens, T.H. 2000. Pep12p is a multifunctional yeast syntaxin that controls entry of biosynthetic, endocytic and retrograde traffic into the prevacuolar compartment. *Traffic* 1: 259-269.
4. Gerrard, S.R., Mecklem, A.B., and Stevens, T.H. 2000. The yeast endosomal t-SNARE, Pep12p, functions in the absence of its transmembrane domain. *Traffic* 1: 45-55.
5. Prescianotto-Baschong, C., and Riezman, H. 2002. Ordering of compartments in the yeast endocytic pathway. *Traffic* 3: 37-49.

SOURCE

Pep12 (yN-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of Pep12 of *Saccharomyces cerevisiae* 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-23726 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

Pep12 (yN-17) is recommended for detection of Pep12 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

PROTOCOLS

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