SANTA CRUZ BIOTECHNOLOGY, INC.

Vam3 (yN-18): sc-19392

BACKGROUND

The interaction between v-SNAREs on transport vesicles and t-SNAREs on target membranes is required for membrane traffic in eukaryotic cells. VAM3 encodes protein Vam3 with a hydrophobic transmembrane segment at its carboxy terminus. The amino-terminus of Vam3 is required for coordination of priming and docking during homotypic vacuole fusion. Vam3 is a syntaxin related protein that provides the t-SNARE function in a late step of the vacuolar assembly. Furthermore, this multispecificity syntaxin homologue, Vam3, is essential for autophagic and biosynthetic protein transport to the vacuole. Vam3 is localized to the vacuole where it mediates delivery of cargoes from both the carboxypeptidase Y and the alkaline phosphatase pathways. VAM genes (for vacuolar morphology) mutants have defective vacuolar morphologies and assembly in the yeast *Saccharomyces cerevisiae*.

REFERENCES

1. Wada, Y., Ohsumi, Y. and Anraku, Y. 1992. Genes for directing vacuolar morphogenesis in *Saccharomyces cerevisiae*. I. Isolation and characterization of two classes of Vam mutants. J. Biol. Chem. 267: 18665-18670.
2. Wada, Y., Nakamura, N., Ohsumi, Y. and Hirata, A. 1997. Vam3p, a new member of syntaxin related protein, is required for vacuolar assembly in the yeast *Saccharomyces cerevisiae*. J. Cell. Sci. 110: 1299-1306.
3. Darsow, T., Rieder, S.E. and Emr, S.D. 1997. A multispecificity syntaxin homologue, Vam3p, essential for autophagic and biosynthetic protein transport to the vacuole. J. Cell Biol. 138: 517-529.
4. Darsow, T., Burd, C.G. and Emr, S.D. 1998. Acidic di-leucine motif essential for AP-3-dependent sorting and restriction of the functional specificity of the Vam3p vacuolar t-SNARE. J. Cell Biol. 142: 913-922.
5. Fischer von Mollard, G. and Stevens, T.H. 1999. The *Saccharomyces cerevisiae* v-SNARE Vti1p is required for multiple membrane transport pathways to the vacuole. Mol. Biol. Cell 10: 1719-1732.
6. Laage, R. and Ungermann, C. 2001. The N-terminal domain of the t-SNARE Vam3p coordinates priming and docking in yeast vacuole fusion. Mol. Biol. Cell 12: 3375-3385.

SOURCE

Vam3 (yN-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Vam3 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-19392 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.

APPLICATIONS

Vam3 (yN-18) is recommended for detection of Vam3 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.

RESEARCH USE

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

PROTOCOLS

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