

VPS28 (B-2): sc-376337



The Power to Question

BACKGROUND

Vacuolar protein sorting protein 28 (VPS28) is required for normal endocytic and biosynthetic trafficking to the vacuole. VPS28 mutants accumulate vacuolar endocytic and late Golgi markers in an aberrant endosome-like class E compartment. Class E compartments contain endocytosed markers, as well as precursors of vacuolar hydrolases and markers normally associated with the *trans* Golgi. VPS28 as well as other class E VPS proteins may facilitate the formation of transport intermediates required for efficient transport out of the prevacuolar endosome. Class E proteins appear to be important for sorting material bound for the vacuole away from proteins that cycle through the endocytic system. VPS28 of *Saccharomyces cerevisiae* and its human ortholog localize to the cytoplasm and can be found as subunits of a complex named ESCRT-1, endosomal sorting complex required for transport 1.

REFERENCES

1. Rieder, S.E., et al. 1996. Multilamellar endosome-like compartment accumulates in the yeast VPS28 vacuolar protein sorting mutant. *Mol. Biol. Cell* 7: 985-999.
2. Bishop, N., et al. 2001. TSG101/mammalian VPS23 and mammalian VPS28 interact directly and are recruited to VPS4-induced endosomes. *J. Biol. Chem.* 276: 11735-11742.
3. Katzmman, D.J., et al. 2001. Ubiquitin-dependent sorting into the multi-vesicular body pathway requires the function of a conserved endosomal protein sorting complex, ESCRT-I. *Cell* 106: 145-155.
4. Hanson, P.K., et al. 2002. NBD-labeled phosphatidylcholine enters the yeast vacuole via the pre-vacuolar compartment. *J. Cell Sci.* 115: 2725-2733.
5. SWISS-PROT/TrEMBL (Q02767). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

CHROMOSOMAL LOCATION

Genetic locus: VPS28 (human) mapping to 8q24.3; Vps28 (mouse) mapping to 15 D3.

SOURCE

VPS28 (B-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 13-43 near the N-terminus of VPS28 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376337 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

VPS28 (B-2) is recommended for detection of VPS28 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

VPS28 (B-2) is also recommended for detection of VPS28 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for VPS28 siRNA (h): sc-41100, VPS28 siRNA (m): sc-41101, VPS28 shRNA Plasmid (h): sc-41100-SH, VPS28 shRNA Plasmid (m): sc-41101-SH, VPS28 shRNA (h) Lentiviral Particles: sc-41100-V and VPS28 shRNA (m) Lentiviral Particles: sc-41101-V.

Molecular Weight of VPS28: 28 kDa.

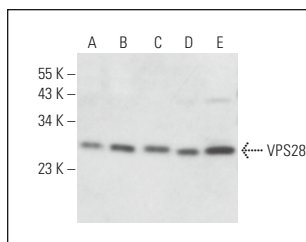
Positive Controls: VPS28 (m): 293T Lysate: sc-124578, A549 cell lysate: sc-2413 or Neuro-2A whole cell lysate: sc-364185.

RECOMMENDED SUPPORT REAGENTS

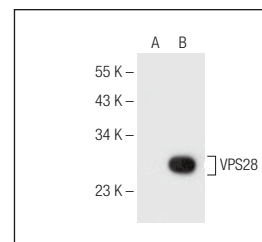
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



VPS28 (B-2): sc-376337. Western blot analysis of VPS28 expression in A549 (A), Neuro-2A (B), C3H/10T1/2 (C), PC-12 (D) and KNRK (E) whole cell lysates.



VPS28 (B-2): sc-376337. Western blot analysis of VPS28 expression in non-transfected: sc-117752 (A) and mouse VPS28 transfected: sc-124578 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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