

VPS28 (E-7): sc-166537

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. Katzmann, D.J., et al. 2001. Ubiquitin-dependent sorting into the multivesicular body pathway requires the function of a conserved endosomal protein sorting complex, ESCRT-I. *Cell* 106: 145-155.
3. 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.

CHROMOSOMAL LOCATION

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

SOURCE

VPS28 (E-7) is a mouse monoclonal antibody raised against amino acids 1-221 representing full length 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.

VPS28 (E-7) is available conjugated to agarose (sc-166537 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166537 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166537 PE), fluorescein (sc-166537 FITC), Alexa Fluor® 488 (sc-166537 AF488), Alexa Fluor® 546 (sc-166537 AF546), Alexa Fluor® 594 (sc-166537 AF594) or Alexa Fluor® 647 (sc-166537 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166537 AF680) or Alexa Fluor® 790 (sc-166537 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

VPS28 (E-7) 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

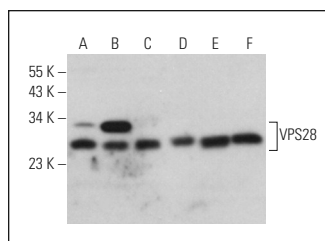
Molecular Weight of VPS28: 28 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, MCF7 whole cell lysate: sc-2206 or A549 cell lysate: sc-2413.

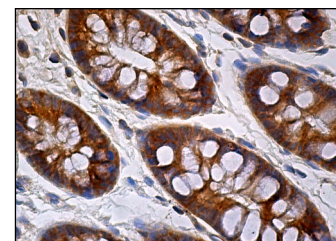
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



VPS28 (E-7): sc-166537. Western blot analysis of VPS28 expression in MCF7 (A), A549 (B), Neuro-2A (C), C3H/10T1/2 (D), PC-12 (E) and KNRK (F) whole cell lysates.



VPS28 (E-7): sc-166537. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Mejlvang, J., et al. 2018. Starvation induces rapid degradation of selective autophagy receptors by endosomal microautophagy. *J. Cell Biol.* 217: 3640-3655.

RESEARCH USE

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