

VPS13D (T-17): sc-104755

BACKGROUND

The vacuolar protein sorting (VPS) pathway regulates protein sorting and vesicle-mediated intracellular transport. VPSs are required for proper trafficking of endocytic and biosynthetic proteins to the vacuole and play an important role in the budding process of cells. In *Saccharomyces cerevisiae*, mutations in VPS genes result in secretion of proteins normally localized to the vacuole. VPS13D (vacuolar protein sorting 13 homolog D) is a 4,387 amino acid protein that belongs to the VPS family and is expressed in a variety of tissues. The VPS13 subfamily of proteins are involved in trafficking of membrane proteins between the *trans*-Golgi network and the prevacuolar compartment. VPS13D exists as 2 alternatively spliced isoforms and is encoded by a gene located on human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome.

REFERENCES

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2. Rampoldi, L., et al. 2001. A conserved sorting-associated protein is mutant in chorea-acanthocytosis. *Nat. Genet.* 28: 119-120.
3. Garrus, J.E., et al. 2001. Tsg101 and the vacuolar protein sorting pathway are essential for HIV-1 budding. *Cell* 107: 55-65.
4. Slagsvold, T. and Stenmark, H. 2004. The structure of an endosomal protein sorter. *Dev. Cell* 7: 457-458.
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6. Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608879. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: VPS13D (human) mapping to 1p36.22; Vps13d (mouse) mapping to 4 E1.

SOURCE

VPS13D (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of VPS13D of human 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-104755 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VPS13D (T-17) is recommended for detection of VPS13D 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).

VPS13D (T-17) is also recommended for detection of VPS13D in additional species, including equine, canine and bovine.

Suitable for use as control antibody for VPS13D siRNA (h): sc-88079, VPS13D siRNA (m): sc-106695, VPS13D shRNA Plasmid (h): sc-88079-SH, VPS13D shRNA Plasmid (m): sc-106695-SH, VPS13D shRNA (h) Lentiviral Particles: sc-88079-V and VPS13D shRNA (m) Lentiviral Particles: sc-106695-V.

Molecular Weight of VPS13D: 492 kDa.

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.

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.

PROTOCOLS

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