

VPS37 (P-20): sc-50191

BACKGROUND

Vacuolar sorting proteins (VPSs) are required for normal endocytic and biosynthetic trafficking to the vacuole. In addition, they play an important role in the budding process of cells. The charged multivesicular body (MVB) proteins, commonly designated CHMPs, belong to the vacuolar sorting protein family and function as chromatin-modifying proteins. In yeast, VPS23, VPS28 and VPS37 form endosomal sorting complex I required for transport (ESCRT-I), a complex whose assembly is directed by the C-terminal steadiness box of VPS23, the N-terminal half of VPS28 and the C-terminal half of VPS37. ESCRT-I recognizes ubiquitinated MVB protein cargo and functions to sort this cargo into into MVB vesicles. VPS37C represents the human homolog that functions in ESCRT-I.

REFERENCES

1. Katzmann, D.J., et al. 2001. Ubiquitin-dependent sorting into the function of a conserved endosomal protein sorting complex, ESCRT-I. *Cell* 106: 145-155.
2. Bache, K.G., et al. 2004. The growth-regulatory protein HCRP1/hVPS37A is a subunit of mammalian ESCRT-I and mediates receptor downregulation. *Mol. Biol. Cell* 15: 4337-4346.
3. Teo, H., et al. 2004. Structural insights into endosomal sorting complex required for transport (ESCRT-I) recognition of ubiquitinated proteins. *J. Biol. Chem.* 279: 28689-28696.
4. Stuchell, M.D., et al. 2004. The human endosomal sorting complex required for transport (ESCRT-I) and its role in HIV-1 budding. *J. Biol. Chem.* 279: 36059-36071.
5. Eastman, S.W., et al. 2004. Identification of human VPS37C, a component of endosomal sorting complex required for transport-I important for viral budding. *J. Biol. Chem.* 280: 628-636.
6. Kostelansky, M.S., et al. 2006. Structural and functional organization of the ESCRT-I trafficking complex. *Cell* 125: 113-126.
7. Pineda-Molina, E., et al. 2006. The crystal structure of the C-terminal domain of VPS28 reveals a conserved surface required for VPS20 recruitment. *Traffic* 7: 1007-1016.

CHROMOSOMAL LOCATION

Genetic locus: *Vps37a* (mouse) mapping to 8 A4.

SOURCE

VPS37 (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of VPS37 of mouse origin.

STORAGE

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

PROTOCOLS

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

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-50191 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

VPS37 (P-20) is recommended for detection of VPS37 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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).

VPS37 (P-20) is also recommended for detection of VPS37 in additional species, including equine and bovine.

Suitable for use as control antibody for VPS37 siRNA (m): sc-61797, VPS37 shRNA Plasmid (m): sc-61797-SH and VPS37 shRNA (m) Lentiviral Particles: sc-61797-V.

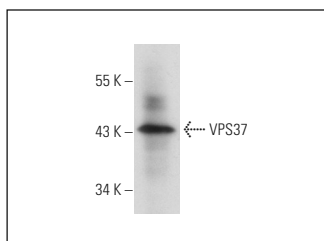
Molecular Weight of VPS37: 45 kDa.

Positive Controls: mouse liver extract: sc-2256.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



VPS37 (P-20): sc-50191. Western blot analysis of VPS37 expression in mouse liver tissue extract.

RESEARCH USE

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