

# VPS25 (D-6): sc-271647

## BACKGROUND

Vacuolar sorting proteins (VPSs) are required for trafficking normal endocytic and biosynthetic proteins to the vacuole and also play an important role in the budding process of cells. VPS25 is a highly conserved and widely expressed eukaryotic protein, with single orthologs in chromalveolate, excavate, amoebozoan, plant, fungal and metazoan species. VPS25, along with Vps22p and Vps36p, functions as a subunit of ESCRT-II, an endosomal sorting complex required for protein transport. This complex is essential for the sorting of ubiquitinated biosynthetic and endosomal proteins into endosomes. ESCRT-II transiently associates with the endosomal membrane, thereby initiating the formation of ESCRT-III, a membrane-associated protein complex that functions immediately downstream of ESCRT-II during sorting of multivesicular body cargo.

## REFERENCES

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- Wernimont, A.K. and Weissenhorn, W. 2004. Crystal structure of subunit VPS25 of the endosomal trafficking complex ESCRT-II. *BMC Struct. Biol.* 4: 10.
- Thompson, B.J., et al. 2005. Tumor suppressor properties of the ESCRT-II complex component VPS25 in *Drosophila*. *Dev. Cell* 9: 711-720.
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- Rusten, T.E., et al. 2006. Fab1 phosphatidylinositol 3-phosphate 5-kinase controls silencing of endocytosed receptors. *Mol. Biol. Cell* 17: 3989-4001.
- Herz, H.M., et al. 2006. VPS25 mosaics display non-autonomous cell survival and overgrowth, and autonomous apoptosis. *Development* 133: 1871-1880.
- Slater, R. and Bishop, N.E. 2006. Genetic structure and evolution of the VPS25 family, a yeast ESCRT-II component. *BMC Evol. Biol.* 6: 59.

## CHROMOSOMAL LOCATION

Genetic locus: VPS25 (human) mapping to 17q21.31; Vps25 (mouse) mapping to 11 D.

## SOURCE

VPS25 (D-6) is a mouse monoclonal antibody raised against amino acids 1-176 representing full length VPS25 of human origin.

## RESEARCH USE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

VPS25 (D-6) is recommended for detection of VPS25 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).

VPS25 (D-6) is also recommended for detection of VPS25 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for VPS25 siRNA (h): sc-61794, VPS25 siRNA (m): sc-61795, VPS25 shRNA Plasmid (h): sc-61794-SH, VPS25 shRNA Plasmid (m): sc-61795-SH, VPS25 shRNA (h) Lentiviral Particles: sc-61794-V and VPS25 shRNA (m) Lentiviral Particles: sc-61795-V.

Molecular Weight of VPS25: 21 kDa.

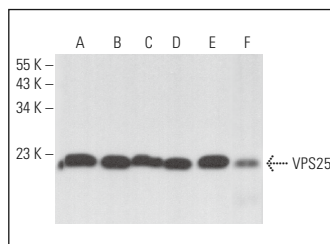
Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Hep G2 cell lysate: sc-2227 or HeLa nuclear extract: sc-2120.

## RECOMMENDED SUPPORT REAGENTS

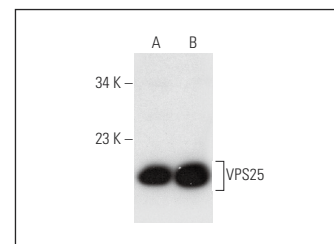
To ensure optimal results, the following support reagents are recommended:

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



VPS25 (D-6): sc-271647. Western blot analysis of VPS25 expression in NIH/3T3 (A), K-562 (B), T-47D (C), Hep G2 (D) and KNRK (E) whole cell lysates and mouse kidney tissue extract (F).



VPS25 (D-6): sc-271647. Western blot analysis of VPS25 expression in NIH/3T3 whole cell lysate (A) and HeLa nuclear extract (B).

## STORAGE

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