VPS25 (FL-176): sc-134749



The Power to Question

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 mulitvesicular body cargo.

REFERENCES

- Hierro, A., Sun, J., Rusnak, A.S., Kim, J., Prag, G., Emr, S.D. and Hurley, J.H. 2004. Structure of the ESCRT-II endosomal trafficking complex. Nature 431: 221-225.
- Markovich, S., Yekutiel, A., Shalit, I., Shadkchan, Y. and Osherov, N. 2004. Genomic approach to identification of mutations affecting caspofungin susceptibility in *Saccharomyces cerevisiae*. Antimicrob. Agents Chemother. 48: 3871-3876.
- 3. Slagsvold, T. and Stenmark, H. 2004. The structure of an endosomal protein sorter. Dev. Cell 7: 457-458.
- 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., Mathieu, J., Sung, H.H., Loeser, E., Rørth, P. and Cohen, S.M. 2005. Tumor suppressor properties of the ESCRT-II complex component VPS25 in *Drosophila*. Dev. Cell 9: 711-720.
- 6. Boysen, J.H. and Mitchell, A.P. 2006. Control of Bro1-domain protein Rim20 localization by external pH, ESCRT machinery, and the *Saccharomyces cerevisiae* Rim101 pathway. Mol. Biol. Cell 17: 1344-1353.
- 7. Herz, H.M., Chen, Z., Scherr, H., Lackey, M., Bolduc, C. and Bergmann, A. 2006. VPS25 mosaics display non-autonomous cell survival and overgrowth, and autonomous apoptosis. Development 133: 1871-1880.
- 8. Rusten, T.E., Rodahl, L.M., Pattni, K., Englund, C., Samakovlis, C., Dove, S., Brech, A. and Stenmark, H. 2006. Fab1 phosphatidylinositol 3-phosphate 5-kinase controls trafficking but not silencing of endocytosed receptors. Mol. Biol. Cell 17: 3989-4001.
- 9. 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.

RESEARCH USE

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

SOURCE

VPS25 (FL-176) is a rabbit polyclonal antibody raised against amino acids 1-176 representing full length VPS25 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.

APPLICATIONS

VPS25 (FL-176) is recommended for detection of VPS25 of mouse, rat and human 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).

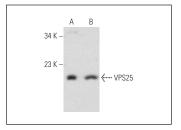
VPS25 (FL-176) is also recommended for detection of VPS25 in additional species, including canine and bovine.

Suitable for use as control antibody for VPS25 siRNA (h): sc-61794, VPS25 siRNA (m): sc-61795, VPS25 shRNA Plasmid (h): sc-61795-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: K-562 whole cell lysate: sc-2203, NIH/3T3 whole cell lysate: sc-2210 or HeLa nuclear extract: sc-2120.

DATA



VPS25 (FL-176): sc-134749. Western blot analysis of VPS25 expression in K-562 (**A**) and NIH/3T3 (**B**) whole cell lysates.

STORAGE

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



Try VPS25 (B-4): sc-271648 or VPS25 (D-6): sc-271647, our highly recommended monoclonal alternatives to VPS25 (FL-176).