

VPS25 (B-4): sc-271648

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.

CHROMOSOMAL LOCATION

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

SOURCE

VPS25 (B-4) is a mouse monoclonal antibody raised against amino acids 1-176 representing full length VPS25 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.

VPS25 (B-4) is available conjugated to agarose (sc-271648 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271648 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271648 PE), fluorescein (sc-271648 FITC), Alexa Fluor[®] 488 (sc-271648 AF488), Alexa Fluor[®] 546 (sc-271648 AF546), Alexa Fluor[®] 594 (sc-271648 AF594) or Alexa Fluor[®] 647 (sc-271648 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271648 AF680) or Alexa Fluor[®] 790 (sc-271648 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

VPS25 (B-4) 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), 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 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.

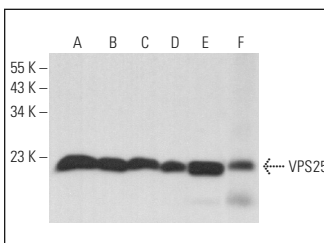
Molecular Weight of VPS25: 21 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, Hep G2 cell lysate: sc-2227 or K-562 whole cell lysate: sc-2203.

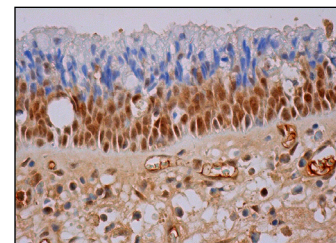
RECOMMENDED SUPPORT REAGENTS

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



VPS25 (B-4): sc-271648. Western blot analysis of VPS25 expression in NIH/3T3 (A), K-562 (B), T-47D (C), Hep G2 (D) and PC-12 (E) whole cell lysates and mouse kidney tissue extract (F).



VPS25 (B-4): sc-271648. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of subset of respiratory epithelial cells.

SELECT PRODUCT CITATIONS

- Stieler, J.T. and Prange, R. 2014. Involvement of ESCRT-II in hepatitis B virus morphogenesis. *PLoS ONE* 9: e91279.
- Bartusch, C. and Prange, R. 2016. ESCRT requirements for murine leukemia virus release. *Viruses* 8: 103.
- DeMarino, C., et al. 2018. Antiretroviral drugs alter the content of extracellular vesicles from HIV-1-infected cells. *Sci. Rep.* 8: 7653.
- Jiang, C., et al. 2019. CRISPR/Cas9 screens reveal multiple layers of B cell CD40 regulation. *Cell Rep.* 28: 1307-1322.e8.
- Zeyen, L., et al. 2020. Hepatitis B virus exploits ERGIC-53 in conjunction with COPII to exit cells. *Cells* 9: 1889.

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 for detailed protocols and support products.

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