

VPS53 Antibody

VPS53 (IN): Vacuolar protein sorting 53, HCCS1

CATALOG No.:4595

BACKGROUND:

The sorting of acid hydrolases to lysosomes rely on mannose 6-phosphate receptors that cycle between the trans-Golgi network (TGN) and endosomes (1). The maintenance of this cycle requires the function of the mammalian Golgi-associated retrograde protein (GARP) complex which is composed of three subunits: VPS52, VPS53, and VPS54 (2). Depletion of any of these three proteins, such as by RNAi, impairs the retrograde transport of multiple TGN proteins (3). VPS53 was identified as an HIV dependency factor (HDF) and plays a role in viral entry to the cell, suggesting that VPS53 may be an important drug target in HIV treatment (4). At least five isoforms of VPS53 are known to exist.

SOURCE:

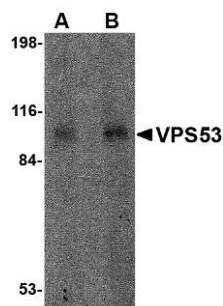
Rabbit polyclonal VPS53 antibody was raised against an 18 amino acid peptide from near the center of human VPS53 (GenBank accession no. EAW90658).

APPLICATIONS:

VPS53 antibody can be used for detection of VPS53 by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user.) 293 cell lysate can be used as positive control. VPS53 antibody is human, mouse and rat reactive. **For research use only.**

STORAGE:

VPS53 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of VPS53 in 293 cell lysate with VPS53 antibody at (A) 0.5 and (B) 1 µg/ml.

RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4595P**.
293 Cell Lysate, Catalog No. **1210**.
VPS53 Antibody (CT), Catalog No. **4593**.

REFERENCES:

1. Pfeffer SR. Targeting of proteins to the lysosome. *Curr. Top. Microbiol. Immunol.* 1991; 170:43-65.
2. Liewen H, Meinhold-Heerlein I, Oliveira V, et al. Characterization of the human GARP (Golgi associated retrograde protein) complex. *Exp. Cell Res.* 2005; 306:22-34.
3. Perez-Victoria FJ, Mardones GA, and Bonifacino JS. Requirement of the human GARP complex for mannose 6-phosphate-receptor-dependent sorting of cathepsin D to lysosomes. *Mol. Biol. Cell* 2008; 19:2350-62.
4. Brass AL, Dykxhoorn DM, Benita Y, et al. Identification of host proteins required for HIV infection through a functional genomic screen. *Science* 2008; 319:921-6. (08-01D)