

VPS53 (L-13): sc-109143



The Power to Question

BACKGROUND

Vacuolar sorting proteins (VPSs) are required for proper trafficking of endocytic and biosynthetic proteins to the vacuole and play an important role in the budding process of cells. VPS53 (vacuolar protein sorting 53), also known as PP13624 or HCCS1, is a 699 amino acid protein that localizes to both the Golgi apparatus and the endosome membrane and belongs to the VPS family. Expressed as multiple alternatively spliced isoforms, VPS53 functions as a component of the multi-protein Golgi-associated retrograde protein (GARP) complex and is thought to be involved in retrograde transport of early and late endosomes to the golgi. The gene encoding VPS53 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

- Zhao, X., et al. 2003. The minimum LOH region defined on chromosome 17p13.3 in human hepatocellular carcinoma with gene content analysis. *Cancer Lett.* 190: 221-232.
- Liewen, H., et al. 2005. Characterization of the human GARP (Golgi associated retrograde protein) complex. *Exp. Cell Res.* 306: 24-34.
- Oka, T. and Krieger, M. 2005. Multi-component protein complexes and Golgi membrane trafficking. *J. Biochem.* 137: 109-114.
- Zhu, J.D., et al. 2006. Transcription of the putative tumor suppressor gene HCCS1 requires binding of ETS-2 to its consensus near the transcription start site. *Cell Res.* 16: 780-796.
- Ko, J.K., et al. 2007. The tail-anchoring domain of Bfl1 and HCCS1 targets mitochondrial membrane permeability to induce apoptosis. *J. Cell Sci.* 120: 2912-2923.
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CHROMOSOMAL LOCATION

Genetic locus: VPS53 (human) mapping to 17p13.3; Vps53 (mouse) mapping to 11 B4.

SOURCE

VPS53 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of VPS53 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.

Blocking peptide available for competition studies, sc-109143 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

VPS53 (L-13) is recommended for detection of VPS53 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); non cross-reactive with other VPS family members.

VPS53 (L-13) is also recommended for detection of VPS53 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for VPS53 siRNA (h): sc-93834, VPS53 siRNA (m): sc-155222, VPS53 shRNA Plasmid (h): sc-93834-SH, VPS53 shRNA Plasmid (m): sc-155222-SH, VPS53 shRNA (h) Lentiviral Particles: sc-93834-V and VPS53 shRNA (m) Lentiviral Particles: sc-155222-V.

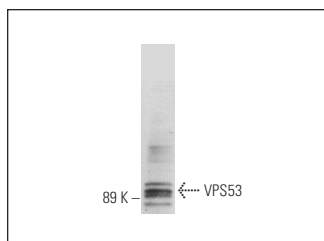
Molecular Weight of VPS53 isoforms: 80/76/94 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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



VPS53 (L-13): sc-109143. Western blot analysis of VPS53 expression in HeLa whole cell lysate.

RESEARCH USE

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

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Try **VPS53 (H-4): sc-514920**, our highly recommended monoclonal alternative to VPS53 (L-13).