

# VPS52 (V-14): sc-103936

## 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. VPS52 (vacuolar protein sorting 52), also known as ARE1, SAC2 or SACM2L, is a 723 amino acid protein that belongs to the VPS family and localizes to the golgi apparatus, as well as to the endosome and the peripheral membrane. Existing as a component of the multi-protein GARP (golgi-associated retrograde) complex, VPS52 is thought to be involved in retrograde transport of early and late endosomes to the golgi. The gene encoding VPS52 maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome.

## REFERENCES

1. Walter, L., et al. 1998. Identification of a novel highly conserved gene in the centromeric part of the major histocompatibility complex. *Genomics* 52: 298-304.
2. Stephens, R., et al. 1999. Gene organisation, sequence variation and isochore structure at the centromeric boundary of the human MHC. *J. Mol. Biol.* 291: 789-799.
3. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 603443. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Liewen, H., et al. 2005. Characterization of the human GARP (Golgi associated retrograde protein) complex. *Exp. Cell Res.* 306: 24-34.
5. Oka, T., et al. 2005. Multi-component protein complexes and Golgi membrane trafficking. *J. Biochem.* 137: 109-114.
6. Smith, R.D., et al. 2008. Role of the conserved oligomeric Golgi (COG) complex in protein glycosylation. *Carbohydr. Res.* 343: 2024-2031.
7. Pérez-Victoria, F.J., et al. 2008. Requirement of the human GARP complex for mannose 6-phosphate-receptor-dependent sorting of cathepsin D to lysosomes. *Mol. Biol. Cell* 19: 2350-2362.

## CHROMOSOMAL LOCATION

Genetic locus: VPS52 (human) mapping to 6p21.3; Vps52 (mouse) mapping to 17 B1.

## SOURCE

VPS52 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of VPS52 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-103936 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

VPS52 (V-14) is recommended for detection of VPS52 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

Suitable for use as control antibody for VPS52 siRNA (h): sc-95447, VPS52 siRNA (m): sc-106701, VPS52 shRNA Plasmid (h): sc-95447-SH, VPS52 shRNA Plasmid (m): sc-106701-SH, VPS52 shRNA (h) Lentiviral Particles: sc-95447-V and VPS52 shRNA (m) Lentiviral Particles: sc-106701-V.

Molecular Weight of VPS52: 82 kDa.

## 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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<sup>™</sup> Mounting Medium: sc-24941.

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.