

VPS16 Antibody (internal region)

Peptide-affinity purified goat antibody Catalog # AF4116a

### Specification

## VPS16 Antibody (internal region) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Concentration Isotype Calculated MW WB <u>Q9H269</u> <u>NP\_072097.2</u>, <u>NP\_536338.1</u>, <u>64601</u>, <u>80743</u> (mouse), <u>296159 (rat)</u> Human Mouse, Rat, Pig, Dog Goat Polyclonal 0.5 mg/ml IgG 94694

## VPS16 Antibody (internal region) - Additional Information

Gene ID 64601

**Other Names** Vacuolar protein sorting-associated protein 16 homolog, hVPS16, VPS16

Format

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions** VPS16 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

## VPS16 Antibody (internal region) - Protein Information

Name VPS16

#### Function

Plays a role in vesicle-mediated protein trafficking to lysosomal compartments including the endocytic membrane transport and autophagic pathways. Believed to act as a core component of the putative HOPS and CORVET endosomal tethering complexes which are proposed to be involved in the Rab5-to-Rab7 endosome conversion probably implicating MON1A/B, and via binding SNAREs and SNARE complexes to mediate tethering and docking events during SNARE-mediated membrane fusion. The HOPS complex is proposed to be recruited to Rab7 on the



late endosomal membrane and to regulate late endocytic, phagocytic and autophagic traffic towards lysosomes. The CORVET complex is proposed to function as a Rab5 effector to mediate early endosome fusion probably in specific endosome subpopulations (PubMed:<a

href="http://www.uniprot.org/citations/11382755" target="\_blank">11382755</a>, PubMed:<a href="http://www.uniprot.org/citations/23351085" target="\_blank">23351085</a>, PubMed:<a href="http://www.uniprot.org/citations/24554770" target="\_blank">24554770</a>, PubMed:<a href="http://www.uniprot.org/citations/24554770" target="\_blank">24554770</a>, PubMed:<a href="http://www.uniprot.org/citations/25266290" target="\_blank">25266290</a>, PubMed:<a href="http://www.uniprot.org/citations/25266290" target="\_blank">25266290</a>, PubMed:<a href="http://www.uniprot.org/citations/25783203" target="\_blank">25783203</a>, PubMed:<a href="http://www.uniprot.org/citations/25783203" target="\_blank">25783203</a>, PubMed:<a href="http://www.uniprot.org/citations/25783203" target="\_blank">25783203</a>). Required for recruitment of VPS33A to the HOPS complex (PubMed:<a

href="http://www.uniprot.org/citations/23901104" target="\_blank">23901104</a>). Required for fusion of endosomes and autophagosomes with lysosomes; the function is dependent on its association with VPS33A but not VPS33B (PubMed:<a

href="http://www.uniprot.org/citations/25783203" target="\_blank">25783203</a>). The function in autophagosome- lysosome fusion implicates STX17 but not UVRAG (PubMed:<a href="http://www.uniprot.org/citations/24554770" target=" blank">24554770</a>).

### **Cellular Location**

Late endosome membrane; Peripheral membrane protein; Cytoplasmic side. Lysosome membrane; Peripheral membrane protein; Cytoplasmic side. Early endosome. Cytoplasmic vesicle, clathrin-coated vesicle {ECO:0000250|UniProtKB:Q920Q4}. Cytoplasmic vesicle, autophagosome. Note=Colocalizes with AP- 3, clathrin, Rab5 and Rab7b (By similarity). Cytoplasmic, peripheral membrane protein associated with early endosomes and late endosomes/lysosomes. {ECO:0000250|UniProtKB:Q920Q4, ECO:0000305}

Tissue Location Ubiquitous.

### VPS16 Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- <u>Cell Culture</u>

VPS16 Antibody (internal region) - Images

250kDa 150kDa 100kDa 75kDa
50kDa
37kDa
25kDa
20kDa
15kDa

AF4116a (1  $\mu$ g/ml) staining of HepG2 lysate (35  $\mu$ g protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

# VPS16 Antibody (internal region) - Background

This antibody is expected to recognize both reported isoforms (NP\_072097.2; NP\_536338.1).

### VPS16 Antibody (internal region) - References

Molecular cloning and characterization of human VPS18, VPS 11, VPS16, and VPS33. Huizing M, Didier A, Walenta J, Anikster Y, Gahl WA, Krämer H. Gene. 2001 Feb 21;264(2):241-7. PMID: 11250079