

**VARP Antibody**  
**Catalog # ASC11001****Specification****VARP Antibody - Product Information**

Application	IHC
Primary Accession	<a href="#">Q96NW4</a>
Other Accession	<a href="#">NP_115515</a> , <a href="#">116063534</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	VARP antibody can be used for detection of VARP by Immunohistochemistry at 5 µg/mL.

**VARP Antibody - Additional Information**

Gene ID	84079
Target/Specificity	
ANKRD27;	

**Reconstitution & Storage**

VARP antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

VARP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**VARP Antibody - Protein Information**

**Name** ANKRD27

**Function**

May be a guanine exchange factor (GEF) for Rab21, Rab32 and Rab38 and regulate endosome dynamics (PubMed:<a href="http://www.uniprot.org/citations/16525121" target="\_blank">16525121</a>, PubMed:<a href="http://www.uniprot.org/citations/18477474" target="\_blank">18477474</a>). May regulate the participation of VAMP7 in membrane fusion events; in vitro inhibits VAMP7-mediated SNARE complex formation by trapping VAMP7 in a closed, fusogenically inactive conformation (PubMed:<a href="http://www.uniprot.org/citations/23104059" target="\_blank">23104059</a>). Involved in peripheral melanosomal distribution of TYRP1 in melanocytes; the function, which probably is implicating vesicle-trafficking, includes cooperation with Rab32, Rab38 and VAMP7 (By similarity). Involved in the regulation of neurite growth; the function seems to require its GEF activity, probably towards Rab21, and VAMP7 but not Rab32/38 (By similarity). Proposed to be involved in Golgi sorting of VAMP7 and transport of VAMP7 vesicles to the cell surface; the function seems to implicate kinesin heavy chain isoform 5 proteins, GOLGA4, RAB21 and MACF1 (PubMed:<a href="http://www.uniprot.org/citations/22705394" target="\_blank">22705394</a>).

target="\_blank">22705394</a>). Required for the colocalization of VAMP7 and Rab21, probably on TGN sites (PubMed:<a href="http://www.uniprot.org/citations/19745841" target="\_blank">19745841</a>). Involved in GLUT1 endosome-to-plasma membrane trafficking; the function is dependent of association with VPS29 (PubMed:<a href="http://www.uniprot.org/citations/24856514" target="\_blank">24856514</a>). Regulates the proper trafficking of melanogenic enzymes TYR, TYRP1 and DCT/TYRP2 to melanosomes in melanocytes (By similarity).

#### **Cellular Location**

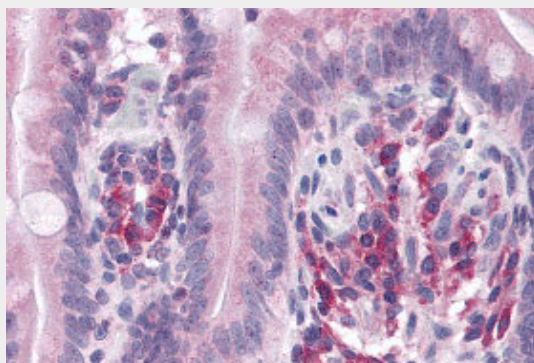
Early endosome. Late endosome. Cytoplasmic vesicle membrane. Lysosome Cell membrane. Melanosome {ECO:0000250|UniProtKB:Q3UMR0}. Note=Colocalizes with VAMP7 in transport vesicles in the shaft of hippocampal neurons (By similarity) {ECO:0000250|UniProtKB:Q3UMR0}

#### **VARP Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **VARP Antibody - Images**



Immunohistochemistry of VARP in human small intestine with VARP antibody at 5 µg/mL.

#### **VARP Antibody - Background**

**VARP Antibody:** The VPS9 ankyrin repeat protein (VARP) binds to the Rab21, a guanine nucleotide exchange factor that plays an essential role in endocytic trafficking. VARP localizes to early endosomes and is thought to regulate endosome dynamics. VARP also interacts with TI-VAMP/VAMP7, a vesicular SNARE that mediates an exocytic pathway that is crucial to neurite growth. Depletion of VARP by RNA interference impairs neurite growth, suggesting that VARP is a positive regulator of neurite growth.

#### **VARP Antibody - References**

Zhang X, He X, Fu XY, et al. Varp is a Rab21 guanine nucleotide exchange factor and regulates endosome dynamics. J. Cell Sci. 2006; 119:1053-62

Burgo A, Sotirakis E, Simmler MC, et al. Role of Varp, a Rab21 exchange factor and TI-VAMP/VAMP7 partner in neurite growth. EMBO Rep. 2009; 10:1117-24.

Alberts P, et al. Cross talk between tetanus neurotoxin-insensitive vesicle-associated membrane protein-mediated transport and L1-mediated adhesion. Mol. Biol. Cell 2003; 14:4207-20