

VARP Antibody
Catalog # ASC11434**Specification****VARP Antibody - Product Information**

Application	WB
Primary Accession	Q96NW4
Other Accession	NP_115515 , 116063534
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	VARP antibody can be used for detection of EPAC1 by Western blot at 1 - 2 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"](http://www.uniprot.org/citations/16525121)target="_blank">16525121, PubMed:<[a href="http://www.uniprot.org/citations/18477474"](http://www.uniprot.org/citations/18477474)target="_blank">18477474). 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"](http://www.uniprot.org/citations/23104059)target="_blank">23104059). 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"](http://www.uniprot.org/citations/22705394)target="_blank">22705394). Required for the colocalization of VAMP7 and Rab21, probably

on TGN sites (PubMed:19745841). Involved in GLUT1 endosome-to-plasma membrane trafficking; the function is dependent of association with VPS29 (PubMed:24856514). Regulates the proper trafficking of melanogenic enzymes TYR, TYRP1 and DCT/TYRP2 to melanosomes in melanocytes (By similarity).

Cellular Location

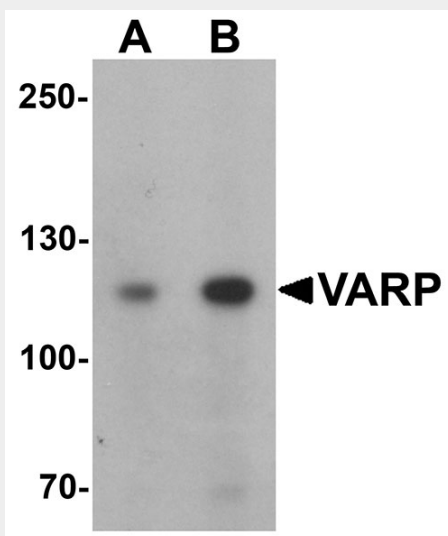
Early endosome. Late endosome. Cytoplasmic vesicle membrane. Lysosome Cell membrane. Melanosome {ECO:0000250|UniProtKB:Q3UMR0}. Note=Colocalizes with VAMP7 in transport vesicles in the shaft of hippocampal neurons (By similarity) {ECO:0000250|UniProtKB:Q3UMR0}

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



Western blot analysis of VARP in K562 cell lysate with VARP antibody at (A) 1 and (B) 2 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