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VPS41 Rabbit pAb

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Catalog # AP54965

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P49754
Predicted	Rat, Human, Mouse, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98566
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human VPS41
Epitope Specificity	1651-1750/4388
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasmic face of coated pits and vesicles.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Vesicle mediated protein sorting plays an important role in segregation of intracellular molecules into distinct organelles. Genetic studies in yeast have identified more than 40 vacuolar protein sorting (VPS) genes involved in vesicle transport to vacuoles. This gene encodes the human ortholog of yeast Vps41 protein which is also conserved in Drosophila, tomato, and Arabidopsis. Expression studies in yeast and human indicate that this protein may be involved in the formation and fusion of transport vesicles from the Golgi. Several transcript variants encoding different isoforms have been described for this gene, however, the full-length nature of not all is known. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	27072
Other Names	Vacuolar protein sorting-associated protein 41 homolog, S53, VPS41
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	VPS41
Function	Plays a role in vesicle-mediated protein trafficking to lysosomal compartments including the endocytic membrane transport and autophagic pathways. Acts as a component of the HOPS endosomal tethering complex. This complex is 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 (PubMed:23351085, PubMed:33851776). Involved in homotypic vesicle fusions between late endosomes and in heterotypic fusions between late endosomes and lysosomes implicated in degradation of endocytosed cargo (PubMed:23167963, PubMed:25445562, PubMed:25908847, PubMed:9159129). Required for fusion of autophagosomes with lysosomes (PubMed:25783203, PubMed:37821429). Links the HOPS complex to endosomal Rab7 via its association with RILP and to lysosomal membranes via its association with ARL8B, suggesting that these interactions may bring the compartments to close proximity for fusion (PubMed:21802320, PubMed:25445562, PubMed:25908847). Involved in the direct trans-Golgi network to late endosomes transport of lysosomal membrane proteins independently of HOPS (PubMed:23322049). Involved in sorting to the regulated secretory pathway presumably implicating the AP-3 adapter complex (By similarity). May play a role in HOPS-independent function in the regulated secretory pathway (PubMed:24210660).
Cellular Location	Endosome membrane; Peripheral membrane protein. Late endosome membrane; Peripheral membrane protein. Early endosome membrane; Peripheral membrane protein. Lysosome membrane; Peripheral membrane protein. Golgi apparatus, trans- Golgi network. Cytoplasmic vesicle, clathrin-coated vesicle. Cytoplasm, cytosol
Tissue Location	Expressed in cerebral cortex and cerebellum. Highly expressed in Purkinje cells.

Background

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.