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KD-Validated Anti-VPS41 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2279

Product Information

Application	WB
Primary Accession	P49754
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	25GB4595
Calculated MW	98566
Gene Name	VPS41
Aliases	VPS41; VPS41 Subunit Of HOPS Complex; HVSP41; Vacuolar Protein Sorting-Associated Protein 41 Homolog; VPS41, HOPS Complex Subunit; S53; Vacuolar Protein Sorting 41 Homolog (S. Cerevisiae); Vacuolar Protein Sorting 41 (Yeast Homolog); Vacuolar Protein Sorting 41 (Yeast); Vacuolar Protein Sorting 41 Homolog; Vacuolar Assembly Protein 41; HVps41p; HVPS41; SCAR29
Immunogen	A synthesized peptide derived from human VPS41

Additional Information

Gene ID	27072
Other Names	Vacuolar protein sorting-associated protein 41 homolog, S53, VPS41

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.

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