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KD-Validated Anti-VPS41 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI2279

Specification

KD-Validated Anti-VPS41 Rabbit Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	P49754
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 99 kDa; observed, 99 kDa KDa**
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**

KD-Validated Anti-VPS41 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**27072**

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

KD-Validated Anti-VPS41 Rabbit Monoclonal Antibody - 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:<a

href="http://www.uniprot.org/citations/23167963" target="_blank">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.

KD-Validated Anti-VPS41 Rabbit Monoclonal 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 Cytomety
- Cell Culture

KD-Validated Anti-VPS41 Rabbit Monoclonal Antibody - Images

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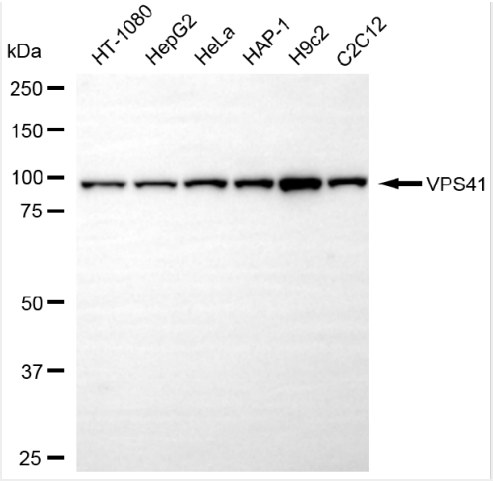
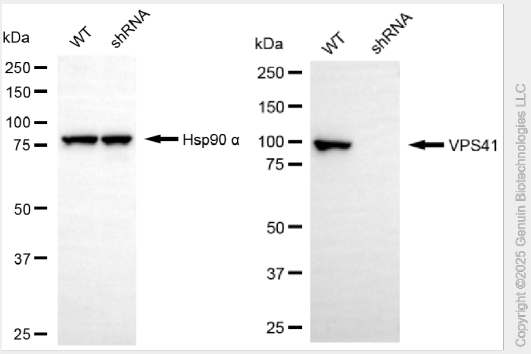


Western blotting analysis using anti-VPS41 antibody (Cat#AGI2279). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-VPS41 antibody (Cat#AGI2279, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-VPS41 antibody (Cat#AGI2279). VPS41 expression in wild-type (WT) and VPS41 shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-VPS41 antibody (Cat#AGI2279, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.