10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KD-Validated Anti-VPS35 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1419

Specification

KD-Validated Anti-VPS35 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	Q96QK1
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 92 kDa, observed, 77 kDa KDa**
Gene Name	**VPS35**
Aliases	**VPS35; VPS35 Retromer Complex Component; MEM3; PARK17; Vacuolar Protein Sorting-Associated Protein 35; Maternal-Embryonic 3; FLJ10752; HVPS35; Vacuolar Protein Sorting 35 Homolog (S. Cerevisiae); Vacuolar Protein Sorting 35 Homolog; VPS35, Retromer Complex Component; Vesicle Protein Sorting 35**
Immunogen	**A synthesized peptide derived from human VPS35**

KD-Validated Anti-VPS35 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**55737**

Other Names
Vacuolar protein sorting-associated protein 35, hVPS35, Maternal-embryonic 3, Vesicle protein sorting 35, VPS35 {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:13487}

KD-Validated Anti-VPS35 Rabbit Monoclonal Antibody - Protein Information

Name VPS35 {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:13487}

Function
Acts as a component of the retromer cargo-selective complex (CSC). The CSC is believed to be the core functional component of retromer or respective retromer complex variants acting to prevent missorting of selected transmembrane cargo proteins into the lysosomal degradation pathway. The recruitment of the CSC to the endosomal membrane involves RAB7A and SNX3. The CSC seems to associate with the cytoplasmic domain of cargo proteins predominantly via VPS35; however, these interactions seem to be of low affinity and retromer SNX proteins may also contribute to cargo selectivity thus questioning the classical function of the CSC. The SNX-BAR retromer mediates retrograde transport of cargo proteins from endosomes to the trans-Golgi network (TGN) and is involved in endosome-to-plasma membrane transport for cargo protein recycling. The SNX3-retromer mediates the retrograde endosome-to-TGN transport of WLS distinct from the SNX-BAR retromer pathway (PubMed:30213940). The

SNX27-retromer is believed to be involved in endosome-to-plasma membrane trafficking and recycling of a broad spectrum of cargo proteins. The CSC seems to act as recruitment hub for other proteins, such as the WASH complex and TBC1D5 (Probable). Required for retrograde transport of lysosomal enzyme receptor IGF2R and SLC11A2. Required to regulate transcytosis of the polymeric immunoglobulin receptor (pIgR-pIgA) (PubMed:15078903, PubMed:15247922, PubMed:20164305). Required for endosomal localization of WASHC2C (PubMed:22070227, PubMed:28892079). Mediates the association of the CSC with the WASH complex via WASHC2 (PubMed:22070227, PubMed:24819384, PubMed:24980502). Required for the endosomal localization of TBC1D5 (PubMed:20923837).

Cellular Location
Cytoplasm. Membrane; Peripheral membrane protein. Endosome Early endosome. Late endosome Note=Localizes to tubular profiles adjacent to endosomes

Tissue Location
Ubiquitous. Highly expressed in heart, brain, placenta, skeletal muscle, spleen, thymus, testis, ovary, small intestine, kidney and colon

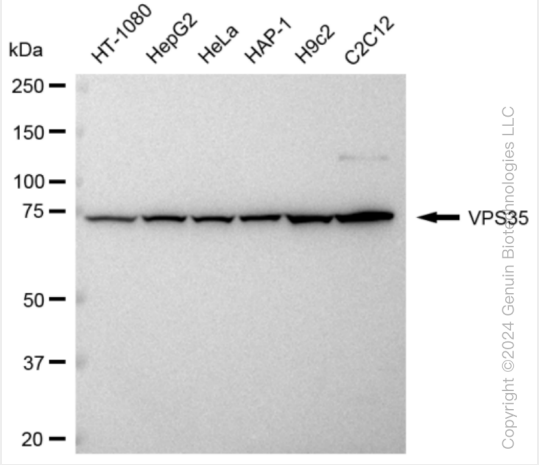
KD-Validated Anti-VPS35 Rabbit Monoclonal Antibody - Protocols

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

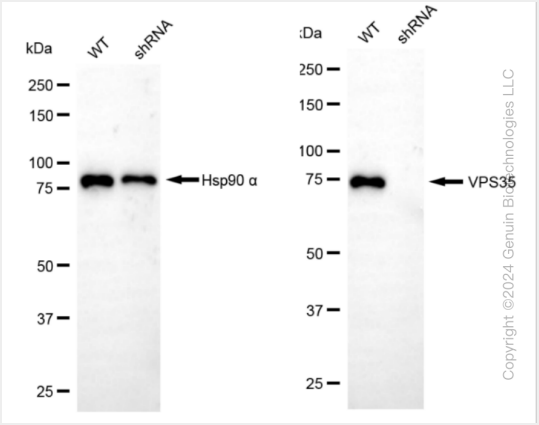
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-VPS35 Rabbit Monoclonal Antibody - Images

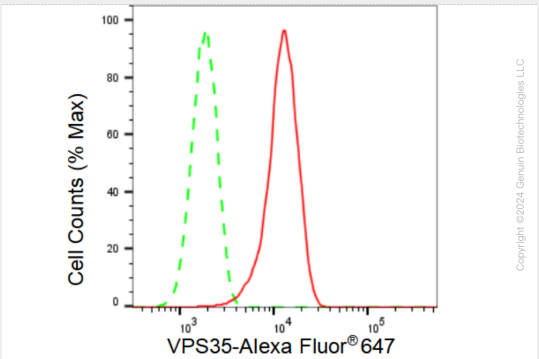
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blotting analysis using anti-VPS35 antibody (Cat#AGI1419). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-VPS35 antibody (Cat#AGI1419, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

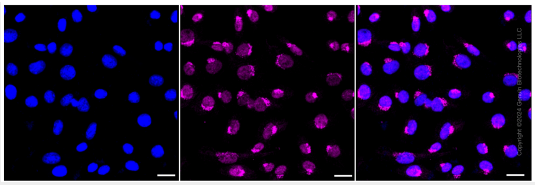


Western blotting analysis using anti-VPS35 antibody (Cat#AGI1419). VPS35 expression in wild type (WT) and VPS35 shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-VPS35 antibody (Cat#AGI1419, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of VPS35 expression in C2C12 cells using VPS35 antibody (Cat#AGI1419, 1:2,000). Green, isotype control; red, VPS35.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Immunocytochemical staining of C2C12 cells with VPS35 antibody (Cat#AGI1419, 1:1,000). Nuclei were stained blue with DAPI; VPS35 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.