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VPS35 Antibody

Rabbit mAb
Catalog # AP91707

Product Information

Application	WB, IHC, IF, FC, ICC, IHF
Primary Accession	Q96QK1
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	hVPS35; MEM3; PARK17; VPS35;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	91707

Additional Information

Dilution	WB 1:1000~1:5000 IHC 1:50~1:200 ICC/IF 1:50~1:200 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human VPS35
Description	Essential component of the retromer complex, a complex required to retrieve lysosomal enzyme receptors (IGF2R and M6PR) from endosomes to the trans-Golgi network. Also required to regulate transcytosis of the polymeric immunoglobulin receptor (pIgR-pIgA).
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

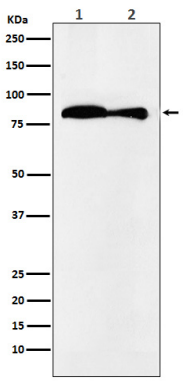
Cellular Location

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

Images



Western blot analysis of VPS35 expression in (1) HeLa cell lysate; (2) Mouse kidney lysate.