

Goat Anti-VPS35 / MEM3 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2153a

Specification

Goat Anti-VPS35 / MEM3 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	O96OK1
Other Accession	NP_060676 , 55737 , 65114 (mouse)
Reactivity	Human
Predicted	Mouse, Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	91707

Goat Anti-VPS35 / MEM3 Antibody - Additional Information

Gene ID 55737

Other Names

Vacuolar protein sorting-associated protein 35, hVPS35, Maternal-embryonic 3, Vesicle protein sorting 35, VPS35, MEM3

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-VPS35 / MEM3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-VPS35 / MEM3 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](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15078903), PubMed:[15247922](http://www.uniprot.org/citations/15247922), PubMed:[20164305](http://www.uniprot.org/citations/20164305)). Required for endosomal localization of WASHC2C (PubMed:[22070227](http://www.uniprot.org/citations/22070227), PubMed:[28892079](http://www.uniprot.org/citations/28892079)). Mediates the association of the CSC with the WASH complex via WASHC2 (PubMed:[22070227](http://www.uniprot.org/citations/22070227), PubMed:[24819384](http://www.uniprot.org/citations/24819384), PubMed:[24980502](http://www.uniprot.org/citations/24980502)). Required for the endosomal localization of TBC1D5 (PubMed:[20923837](http://www.uniprot.org/citations/20923837)).

Cellular Location

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

Tissue Location

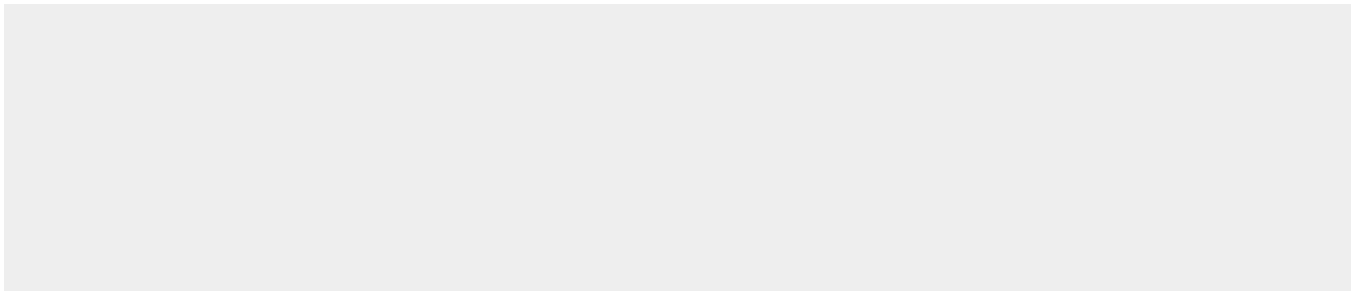
Ubiquitous. Highly expressed in heart, brain, placenta, skeletal muscle, spleen, thymus, testis, ovary, small intestine, kidney and colon

Goat Anti-VPS35 / MEM3 Antibody - Protocols

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

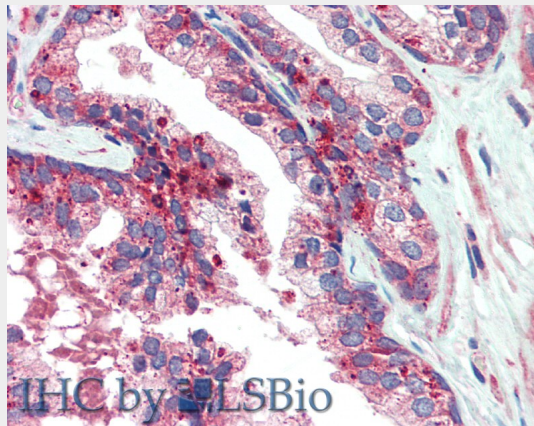
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-VPS35 / MEM3 Antibody - Images

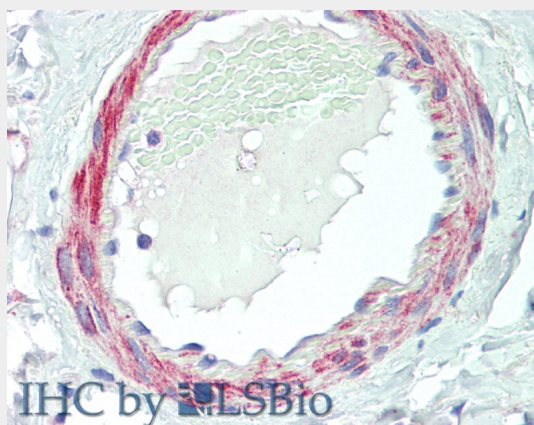




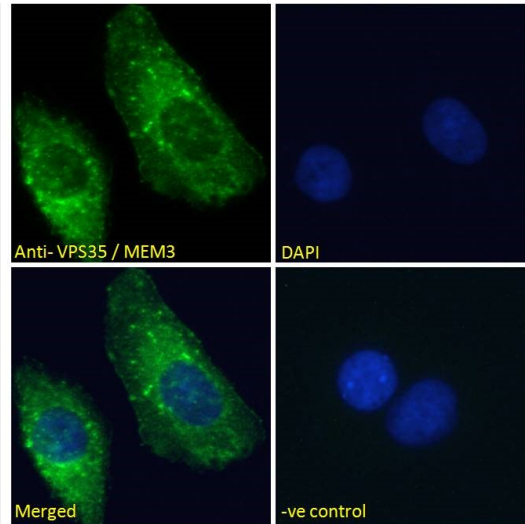
AF2153a (1 $\mu\text{g/ml}$) staining of Human Cerebellum (A) and Mouse Brain (B) lysates (35 μg protein in RIPA buffer). Detected by chemiluminescence.



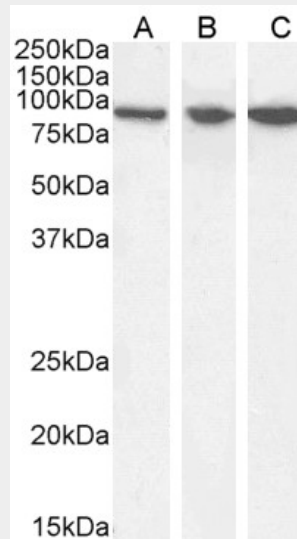
AF2153a (5 $\mu\text{g/ml}$) staining of paraffin embedded Human Prostate. Steamed antigen retrieval with citrate buffer pH 6, AP-staining. **This data is from a previous batch, not on sale.**



AF2153a (5 $\mu\text{g/ml}$) staining of paraffin embedded Human Small Intestine. Steamed antigen retrieval with citrate buffer pH 6, AP-staining. **This data is from a previous batch, not on sale.**



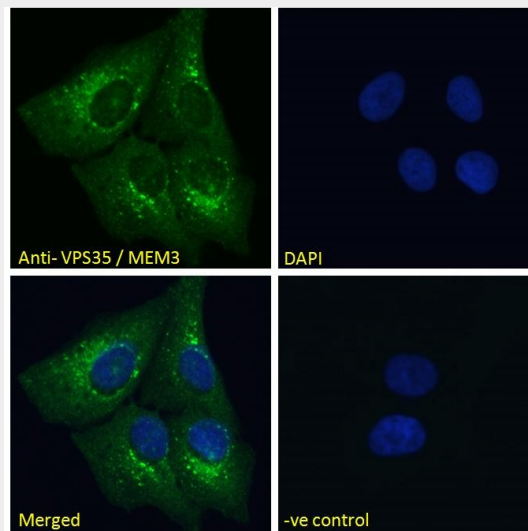
AF2153a Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic staining. The nuclear stain is DAPI (b



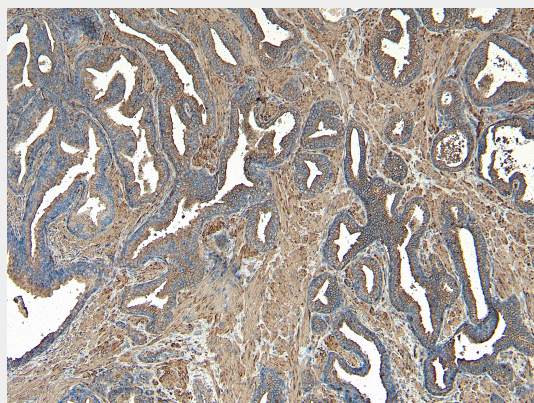
EB06268 (0.03µg/ml) staining of Human (A) Mouse (B) and Rat (C) Brain lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



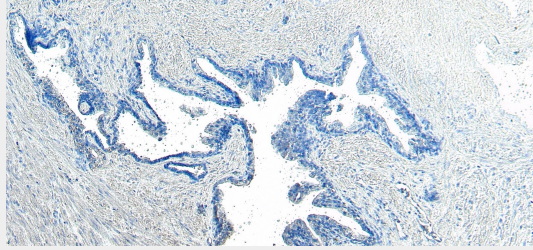
EB06268 (0.03 μ g/ml) staining of HepG2 (A) and HEK293 (B) cell lysate (35 μ g protein in RIPA buffer). Detected by chemiluminescence.



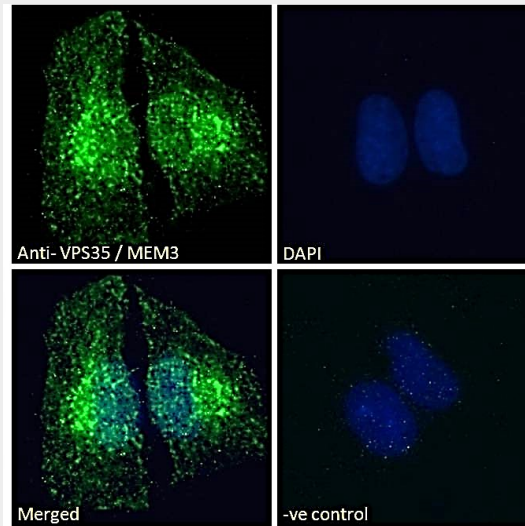
EB06268 Immunofluorescence analysis of paraformaldehyde fixed U2OS cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10 μ g/ml) followed by Alexa Fluor 488 secondary antibody (2 μ g/ml), showing cytoplasmic/vesicle staining. The nuclear stain is



EB06268 (8 μ g/ml) staining of paraffin embedded Human Prostate. Heat induced antigen retrieval with citrate buffer pH 6, HRP-staining.



EB06268 Negative Control showing staining of paraffin embedded Human Prostate, with no primary antibody.



EB06268 Immunofluorescence analysis of paraformaldehyde fixed HEK293 cells, permeabilized with 0.15% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (2ug/ml), showing cytoplasmic/vesicle staining. The nuclear stain

Goat Anti-VPS35 / MEM3 Antibody - Background

This gene belongs to a group of vacuolar protein sorting (VPS) genes. The encoded protein is a component of a large multimeric complex, termed the retromer complex, involved in retrograde transport of proteins from endosomes to the trans-Golgi network. The close structural similarity between the yeast and human proteins that make up this complex suggests a similarity in function. Expression studies in yeast and mammalian cells indicate that this protein interacts directly with VPS35, which serves as the core of the retromer complex.

Goat Anti-VPS35 / MEM3 Antibody - References

- Retromer-mediated direct sorting is required for proper endosomal recycling of the mammalian iron transporter DMT1. Tabuchi M, et al. *J Cell Sci*, 2010 Mar 1. PMID 20164305.
- Defining the human deubiquitinating enzyme interaction landscape. Sowa ME, et al. *Cell*, 2009 Jul 23. PMID 19615732.
- GOLPH3 modulates mTOR signalling and rapamycin sensitivity in cancer. Scott KL, et al. *Nature*, 2009 Jun 25. PMID 19553991.
- Membrane recruitment of the cargo-selective retromer subcomplex is catalysed by the small GTPase Rab7 and inhibited by the Rab-GAP TBC1D5. Seaman MN, et al. *J Cell Sci*, 2009 Jul 15. PMID 19531583.
- Dominant-negative behavior of mammalian Vps35 in yeast requires a conserved PRLYL motif involved in retromer assembly. Zhao X, et al. *Traffic*, 2007 Dec. PMID 17916227.