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Goat Anti-VPS29 (C Terminus) Antibody

Peptide-affinity purified goat antibody
Catalog # AF2152a

Specification

Goat Anti-VPS29 (C Terminus) Antibody - Product Information

Application	**WB**
Primary Accession	Q9UBQ0
Other Accession	NP_476528, 51699, 56433 (mouse)
Reactivity	**Human**
Predicted	**Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**20506**

Goat Anti-VPS29 (C Terminus) Antibody - Additional Information

Gene ID 51699

Other Names
Vacuolar protein sorting-associated protein 29, hVPS29, PEP11 homolog, Vesicle protein sorting 29, VPS29

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-VPS29 (C Terminus) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-VPS29 (C Terminus) Antibody - Protein Information

Name VPS29 {ECO:0000303|PubMed:30213940, ECO:0000312|HGNC:HGNC:14340}

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 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. 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. Required to regulate transcytosis of the polymeric immunoglobulin receptor (pIgR- pIgA) (PubMed:15247922, PubMed:21725319, PubMed:23563491). Acts also as component of the retriever complex. The retriever complex is a heterotrimeric complex related to retromer cargo-selective complex (CSC) and essential for retromer-independent retrieval and recycling of numerous cargos such as integrin alpha-5/beta-1 (ITGA5:ITGB1) (PubMed:28892079). In the endosomes, retriever complex drives the retrieval and recycling of NxxY-motif-containing cargo proteins by coupling to SNX17, a cargo essential for the homeostatic maintenance of numerous cell surface proteins associated with processes that include cell migration, cell adhesion, nutrient supply and cell signaling (PubMed:28892079). The recruitment of the retriever complex to the endosomal membrane involves CCC and WASH complexes (PubMed:28892079). Involved in GLUT1 endosome-to-plasma membrane trafficking; the function is dependent of association with ANKRD27 (PubMed:24856514).

Cellular Location
Cytoplasm. Membrane; Peripheral membrane protein. Endosome membrane {ECO:0000250|UniProtKB:Q9QZ88}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9QZ88}. Early endosome Late endosome

Tissue Location
Ubiquitous. Highly expressed in heart, lung, placenta, spleen, peripheral blood leukocytes, thymus, colon skeletal muscle, kidney and brain

Goat Anti-VPS29 (C Terminus) 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

Goat Anti-VPS29 (C Terminus) Antibody - Images

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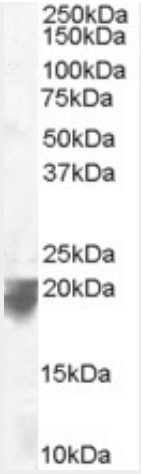

AF2152a staining (0.1 µg/ml) of Human Spleen lysate (RIPA buffer, 35 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-VPS29 (C Terminus) Antibody - Background

This gene belongs to a group of vacuolar protein sorting (VPS) genes that, when functionally impaired, disrupt the efficient delivery of vacuolar hydrolases. The protein encoded by this gene is a component of a large multimeric complex, termed the retromer complex, which is involved in retrograde transport of proteins from endosomes to the trans-Golgi network. This VPS protein may be involved in the formation of the inner shell of the retromer coat for retrograde vesicles leaving the prevacuolar compartment. Alternative splice variants encoding different isoforms, and usage of multiple polyadenylation sites have been found for this gene.

Goat Anti-VPS29 (C Terminus) Antibody - References

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.
Functional architecture of the retromer cargo-recognition complex. Hierro A, et al. Nature, 2007 Oct 25. PMID 17891154.
Interchangeable but essential functions of SNX1 and SNX2 in the association of retromer with endosomes and the trafficking of mannose 6-phosphate receptors. Rojas R, et al. Mol Cell Biol, 2007 Feb. PMID 17101778.
The human Vps29 retromer component is a metallo-phosphoesterase for a cation-independent mannose 6-phosphate receptor substrate peptide. Damen E, et al. Biochem J, 2006 Sep 15. PMID 16737443.
The LIFEdb database in 2006. Mehrle A, et al. Nucleic Acids Res, 2006 Jan 1. PMID 16381901.