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VPS29 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54961

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q9UBQ0
Reactivity	Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20506
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human VPS29
Epitope Specificity	21-120/182
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Membrane. Endosome membrane.
SIMILARITY	Belongs to the VPS29 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 representing non-protein coding transcripts have been found for this gene. [provided by RefSeq, Aug 2013]

Additional Information

Gene ID	51699
Other Names	Vacuolar protein sorting-associated protein 29, hVPS29, PEP11 homolog, Vesicle protein sorting 29, VPS29 {ECO:0000303|PubMed:30213940, ECO:0000312|HGNC:HGNC:14340}
Target/Specificity	Ubiquitous. Highly expressed in heart, lung, placenta, spleen, peripheral blood leukocytes, thymus, colon skeletal muscle, kidney and brain.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000

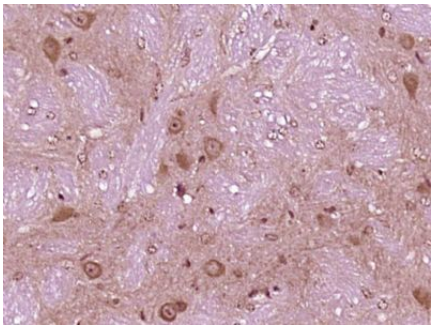
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	VPS29 {ECO:0000303|PubMed:30213940, ECO:0000312|HGNC:HGNC:14340}
Function	Component of the commander complex that is essential for endosomal recycling of transmembrane cargos; the commander complex is composed of the CCC subcomplex and the retriever subcomplex (PubMed:37172566, PubMed:39587083, PubMed:38062209, PubMed:38459129). Component of the retriever complex, which 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, PubMed:37172566, PubMed:39587083, PubMed:38062209, PubMed:38459129). 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). 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, PubMed:39587083). 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

Images

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase



by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (VPS29) Polyclonal Antibody, Unconjugated (AP54961) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.