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ATP6V1G1 Antibody(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5529

Product Information

Application	WB
Primary Accession	O75348
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	13758
Isotype	Rabbit IgG
Antigen Source	HUMAN

Additional Information

Gene ID	9550
Antigen Region	90-118
Other Names	V-type proton ATPase subunit G 1, V-ATPase subunit G 1, V-ATPase 13 kDa subunit 1, Vacuolar proton pump subunit G 1, Vacuolar proton pump subunit M16, ATP6V1G1, ATP6G, ATP6G1, ATP6J
Dilution	WB~~1:1000
Target/Specificity	This ATP6V1G1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 90-118 amino acids from the C-terminal region of human ATP6V1G1.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ATP6V1G1 Antibody(C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATP6V1G1
Synonyms	ATP6G, ATP6G1, ATP6J

Function	Subunit of the V1 complex of vacuolar(H+)-ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that translocates protons (PubMed:32001091, PubMed:33065002). V-ATPase is responsible for acidifying and maintaining the pH of intracellular compartments and in some cell types, is targeted to the plasma membrane, where it is responsible for acidifying the extracellular environment (PubMed:32001091). In aerobic conditions, involved in intracellular iron homeostasis, thus triggering the activity of Fe(2+) prolyl hydroxylase (PHD) enzymes, and leading to HIF1A hydroxylation and subsequent proteasomal degradation (PubMed:28296633).
Cellular Location	Apical cell membrane
Tissue Location	Kidney; localizes to early distal nephron, encompassing thick ascending limbs and distal convoluted tubules (at protein level) (PubMed:29993276). Ubiquitous (PubMed:12384298)

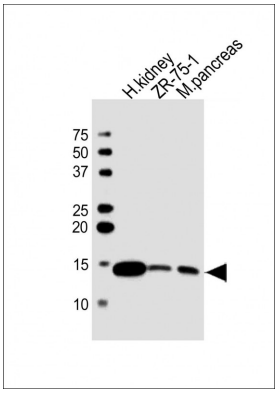
Background

This gene encodes a component of vacuolar ATPase (V-ATPase), a multisubunit enzyme that mediates acidification of eukaryotic intracellular organelles. V-ATPase dependent organelle acidification is necessary for such intracellular processes as protein sorting, zymogen activation, receptor-mediated endocytosis, and synaptic vesicle proton gradient generation. V-ATPase is composed of a cytosolic V1 domain and a transmembrane V0 domain. The V1 domain consists of three A, three B, and two G subunits, as well as a C, D, E, F, and H subunit. The V1 domain contains the ATP catalytic site. The protein encoded by this gene is one of three V1 domain G subunit proteins. Pseudogenes of this gene have been characterized.

References

Norgett, E.E., et al. J. Biol. Chem. 282(19):14421-14427(2007)
Lamesch, P., et al. Genomics 89(3):307-315(2007)
Stelzl, U., et al. Cell 122(6):957-968(2005)
Morel, N. Biol. Cell 95(7):453-457(2003)
Smith, A.N., et al. Mol. Cell 12(4):801-803(2003)

Images



All lanes : Anti-ATP6V1G1 Antibody (C-term) at 1:1000 dilution Lane 1: human kidney lysate Lane 2: ZR-75-1 whole cell lysate Lane 3: mouse pancreas lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 14 kDa Blocking/Dilution buffer: 5% NFDM/TBST.