10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATP6V1G1 Antibody(C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP19555b

Product Information

Application	WB, E
Primary Accession	O75348
Other Accession	Q9CR51, P79251, NP_004879.1
Reactivity	Human, Mouse
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB41012
Calculated MW	13758
Antigen Region	90-118

Additional Information

Gene ID	9550
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
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.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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 promotes acidification of the extracellular environment (PubMed:32001091). The V-ATPase complex also acts as an activator for mTORC1 on lysosomal membrane by promoting the guanine nucleotide exchange factor (GEF) of the Ragulator complex, thereby enabling mTORC1 recruitment (PubMed:22053050). 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)

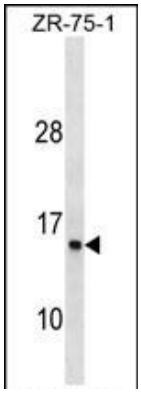
Background

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



ATP6V1G1 Antibody (C-term) (Cat. #AP19555b) western blot analysis in ZR-75-1 cell line lysates (35ug/lane).This demonstrates the ATP6V1G1 antibody detected the ATP6V1G1 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.