

**ATP6V0A1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP5109A**

**Specification**

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**ATP6V0A1 Antibody (N-term) - Product Information**

Application	FC, IHC-P, WB,E
Primary Accession	<a href="#">Q93050</a>
Other Accession	<a href="#">Q8AVM5</a> , <a href="#">P25286</a> , <a href="#">Q9Z1G4</a> , <a href="#">Q9I8D0</a> , <a href="#">Q29466</a>
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	44-71

**ATP6V0A1 Antibody (N-term) - Additional Information**

**Gene ID** 535

**Other Names**

V-type proton ATPase 116 kDa subunit a isoform 1, V-ATPase 116 kDa isoform a1, Clathrin-coated vesicle/synaptic vesicle proton pump 116 kDa subunit, Vacuolar adenosine triphosphatase subunit Ac116, Vacuolar proton pump subunit 1, Vacuolar proton translocating ATPase 116 kDa subunit a isoform 1, ATP6V0A1, ATP6N1, ATP6N1A, VPP1

**Target/Specificity**

This ATP6V0A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 44-71 amino acids from the N-terminal region of human ATP6V0A1.

**Dilution**

FC~~1:10~50

IHC-P~~1:10~50

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**

ATP6V0A1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**ATP6V0A1 Antibody (N-term) - Protein Information**

**Name** ATP6V0A1

**Synonyms** ATP6N1, ATP6N1A, VPP1

**Function** Subunit of the V0 complex of vacuolar(H<sup>+</sup>)-ATPase (V-ATPase), a multisubunit enzyme composed of a peripheral complex (V1) that hydrolyzes ATP and a membrane integral complex (V0) that transports protons across cellular membranes. V-ATPase is responsible for the acidification of various organelles, such as lysosomes, endosomes, the trans-Golgi network, and secretory granules, including synaptic vesicles (PubMed:[33065002](#), PubMed:[33833240](#), PubMed:[34909687](#)). In certain cell types, can be exported to the plasma membrane, where it is involved in the acidification of the extracellular environment (By similarity). Required for assembly and activity of the vacuolar ATPase (By similarity). Through its action on compartment acidification, plays an essential role in neuronal development in terms of integrity and connectivity of neurons (PubMed:[33833240](#)).

**Cellular Location**

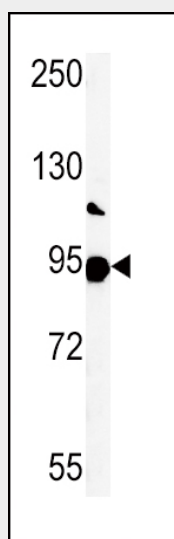
Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:P25286}; Multi-pass membrane protein. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:P25286}; Multi-pass membrane protein. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

**ATP6V0A1 Antibody (N-term) - Protocols**

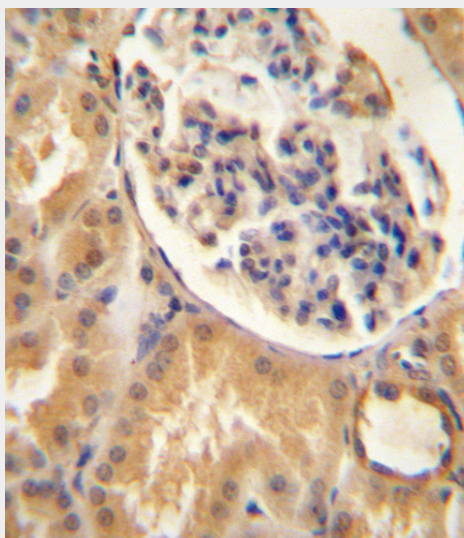
Provided below are standard protocols that you may find useful for product applications.

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

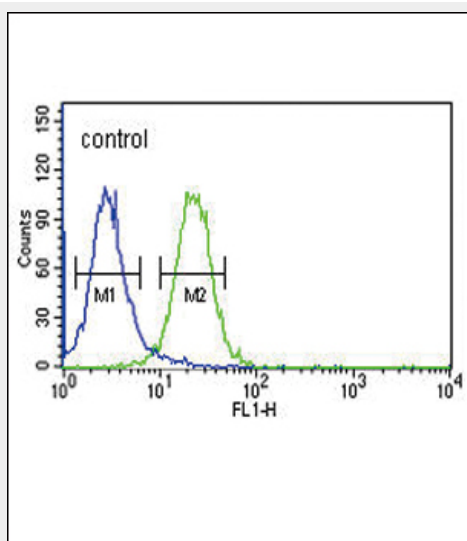
**ATP6V0A1 Antibody (N-term) - Images**



Western blot analysis of ATP6V0A1 Antibody (N-term) (Cat. #AP5109a) in K562 cell line lysates (35ug/lane).ATP6V0A1 (arrow) was detected using the purified Pab.



ATP6V0A1 Antibody (N-term) (Cat. #AP5109A)immunohistochemistry analysis in formalin fixed and paraffin embedded human kidney tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of ATP6V0A1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



ATP6V0A1 Antibody (N-term) (Cat. #AP5109a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### ATP6V0A1 Antibody (N-term) - Background

ATP6V0A1 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 and three B subunits, two G subunits plus the C, D, E, F, and H subunits. The V1 domain contains the ATP catalytic site. The V0 domain consists of five different subunits: a, c, c', c', and d. Additional isoforms of many of the V1 and V0 subunit proteins are encoded by multiple genes or alternatively spliced transcript variants. This gene encodes one of three A subunit proteins and the

encoded protein is associated with clathrin-coated vesicles.

#### **ATP6V0A1 Antibody (N-term) - References**

Antonacopoulou, A.G., et al. Anticancer Res. 28 (2B), 1221-1227 (2008)  
Norgett, E.E., et al. J. Biol. Chem. 282(19):14421-14427(2007)  
Chi, A., et al. J. Proteome Res. 5(11):3135-3144(2006)