

## ATP12A Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP8687c

### Specification

## **ATP12A Antibody (Center) - Product Information**

Application Primary Accession Reactivity	FC, IHC-P, WB,E <u>P54707</u> Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	115511
Antigen Region	833-859

## ATP12A Antibody (Center) - Additional Information

Gene ID 479

**Other Names** Potassium-transporting ATPase alpha chain 2, Non-gastric H(+)/K(+) ATPase subunit alpha, Proton pump, ATP12A, ATP1AL1

Target/Specificity

This ATP12A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 833-859 amino acids from the Central region of human ATP12A.

**Dilution** FC~~1:10~50 IHC-P~~1:50~100 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

ATP12A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## **ATP12A Antibody (Center) - Protein Information**

Name ATP12A {ECO:0000303|PubMed:29391451, ECO:0000312|HGNC:HGNC:13816}



**Function** The catalytic subunit of a H(+)/K(+) ATPase and/or Na(+)/K(+) ATPase pump which transports K(+) ions in exchange for Na(+) and/or H(+) ions across the apical membrane of epithelial cells. Uses ATP as an energy source to pump K(+) ions into the cell while transporting Na(+) and/or H(+) ions to the extracellular compartment (PubMed:<u>11341842</u>, PubMed:<u>7485470</u>, PubMed:<u>8853415</u>, PubMed:<u>9774385</u>). Involved in the maintenance of electrolyte homeostasis through K(+) ion absorption in kidney and colon (By similarity). In the airway epithelium, may play a primary role in mucus acidification regulating its viscosity and clearance (PubMed:<u>29391451</u>).

#### **Cellular Location**

Apical cell membrane; Multi-pass membrane protein

#### **Tissue Location**

Expressed in airway epithelial cells (at protein level) (PubMed:29391451). Found in skin and kidney. Detected in prostate basal cells (at protein level). Expression is increased in benign prostate hyperplasia and tumor tissues (at protein level)

## ATP12A Antibody (Center) - Protocols

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

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### ATP12A Antibody (Center) - Images



Western blot analysis of ATP12A Antibody (Center) (Cat. #AP8687c) in K562 cell line lysates (35ug/lane). ATP12A (arrow) was detected using the purified Pab.





Formalin-fixed and paraffin-embedded human skin reacted with ATP12A Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



ATP12A Antibody (Center)(Cat. #AP8687c) flow cytometric analysis of k562 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## ATP12A Antibody (Center) - Background

ATP12A belongs to the family of P-type cation transport ATPases. This protein is a catalytic subunit of the ouabain-sensitive H+/K+ -ATPase that catalyzes the hydrolysis of ATP coupled with the exchange of H(+) and K(+) ions across the plasma membrane. It is also responsible for potassium absorption in various tissues.

# **ATP12A Antibody (Center) - References**

Li,J., et.al., Kidney Int. 65 (4), 1301-1310 (2004)