

ATP6V1A Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9778B

Specification

ATP6V1A Antibody (Center) - Product Information

Application	IHC-P, WB,E
Primary Accession	P38606
Other Accession	Q29048 , P50516 , P31404
Reactivity	Human
Predicted	Bovine, Mouse, Pig
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	68304
Antigen Region	441-468

ATP6V1A Antibody (Center) - Additional Information

Gene ID 523

Other Names

V-type proton ATPase catalytic subunit A, V-ATPase subunit A, V-ATPase 69 kDa subunit, Vacuolar ATPase isoform VA68, Vacuolar proton pump subunit alpha, ATP6V1A, ATP6A1, ATP6V1A1, VPP2

Target/Specificity

This ATP6V1A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 441-468 amino acids from the Central region of human ATP6V1A.

Dilution

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

ATP6V1A Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

ATP6V1A Antibody (Center) - Protein Information

Name ATP6V1A

Synonyms ATP6A1, ATP6V1A1, VPP2

Function Catalytic 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:[8463241](#)). 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](#)). May play a role in neurite development and synaptic connectivity (PubMed:[29668857](#)).

Cellular Location

Cytoplasm. Cytoplasm, cytosol {ECO:0000250|UniProtKB:P50516}. Cytoplasmic vesicle, secretory vesicle. Cytoplasmic vesicle, clathrin-coated vesicle membrane {ECO:0000250|UniProtKB:P31404}; Peripheral membrane protein. Lysosome {ECO:0000250|UniProtKB:P50516} Note=Co-localizes with WFS1 in the secretory granules in neuroblastoma cell lines.

Tissue Location

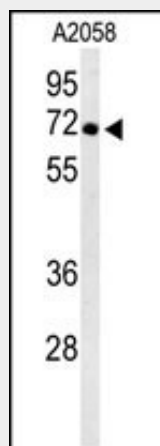
High expression in the skin.

ATP6V1A Antibody (Center) - Protocols

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

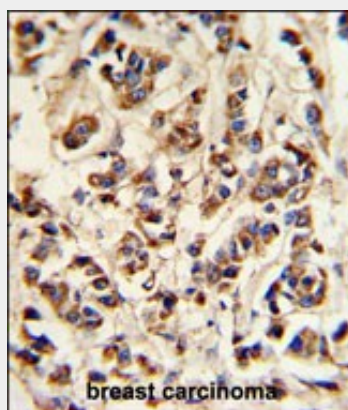
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

ATP6V1A Antibody (Center) - Images



Western blot analysis of ATP6V1A Antibody (Center) (Cat. #AP9778b) in A2058 cell line lysates

(35ug/lane). ATP6V1A (arrow) was detected using the purified Pab.



ATP6V1A Antibody (Center) (Cat. #AP9778b) IHC analysis in formalin fixed and paraffin embedded breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the ATP6V1A Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

ATP6V1A Antibody (Center) - 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 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 encoded protein is one of two V1 domain A subunit isoforms and is found in all tissues.

ATP6V1A Antibody (Center) - References

Martins-de-Souza, D., et al. J Psychiatr Res 43(11):978-986(2009)
Martins-de-Souza, D., et al. BMC Psychiatry 9, 17 (2009)
Lu, M., et al. J. Biol. Chem. 282(34):24495-24503(2007)
Ahmed, M., et al. J. Proteome Res. 4(3):931-940(2005)
Morel, N. Biol. Cell 95(7):453-457(2003)