

Basic Information

Product Name	Anti-ATP6V1A Antibody		
Gene Name	ATP6V1A		
Source	Rabbit		
Clonality	Polyclonal		
Isotype	IgG		
Species Reactivity	human, mouse, rat, monkey		
Tested Application	WB, ICC/IF, FCM, ELISA		
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.		
Immunogen	E.coli-derived human ATP6V1A recombinant protein (Position: A37-D617).		
Concentration	500 ug/ml		
Purification	Immunogen affinity purified.		
Observed MW	70 kDa		
Dilution Ratios	Western blot (WB):	1:500-2000	
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400	
	Flow Cytometry (Fixed):	1:50-200	
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000	

Storage

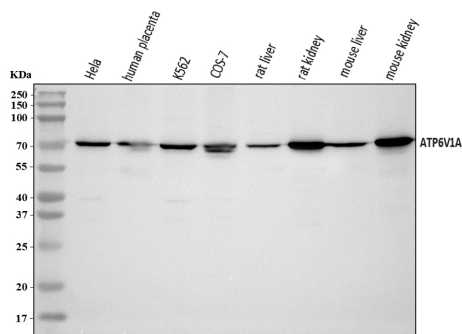
12 months from date of receipt, -20°C as supplied.

Background Information

V-type proton ATPase catalytic subunit A is an enzyme that in humans is encoded by the ATP6V1A gene. 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. Transcript variants derived from alternative polyadenylation

exist.

Selected Validation Data



Western blot analysis of ATP6V1A using anti-ATP6V1A antibody (A10401-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: HeLa whole cell lysates,

Lane 2: human placenta tissue lysates,

Lane 3: K562 whole cell lysates,

Lane 4: COS-7 whole cell lysates,

Lane 5: rat liver tissue lysates,

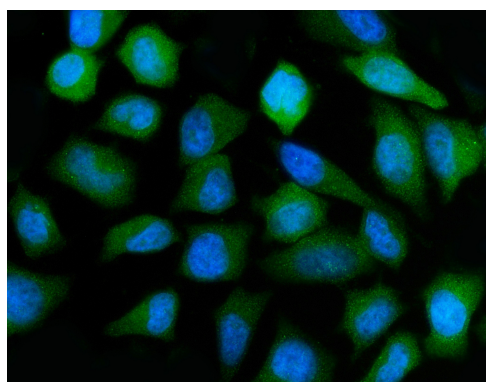
Lane 6: rat kidney tissue lysates,

Lane 7: mouse liver tissue lysates,

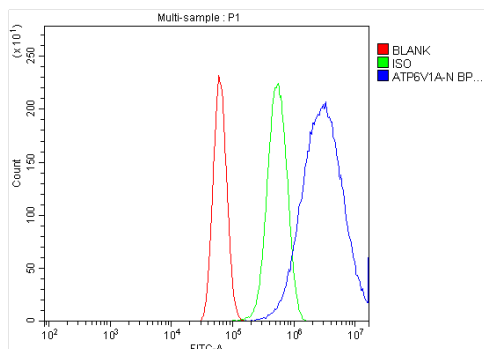
Lane 8: mouse kidney tissue lysates.

After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-ATP6V1A antigen affinity purified polyclonal antibody (A10401-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ATP6V1A at approximately 70 kDa. The expected band size for ATP6V1A is at 68 kDa.



ICC/IF analysis of ATP6V1A using anti-ATP6V1A antibody (A10401-1). ATP6V1A was detected in an immunocytochemical section of HeLa cells. The section was incubated with rabbit anti-ATP6V1A Antibody (A10401-1) at a dilution of 1:100. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of U87 cells using anti-ATP6V1A antibody (A10401-1).

Overlay histogram showing U87 cells stained with A10401-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATP6V1A Antibody (A10401-1) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.