

Product Name: KD-Validated ATP6V1A Recombinant Rabbit Monoclonal Antibody
Catalog #: KVA00617

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,FCM,ICC,IHC-P
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Rabbit IgG
Clonality	Rabbit mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 68.3kDa

Antigen Information

Gene Name	ATP6V1A ATP6V1A; ATPase H ⁺ Transporting V1 Subunit A; V-ATPase Subunit A; ATP6V1A1; ATP6A1; Vma1; VA68; VPP2; ATPase, H ⁺ Transporting, Lysosomal 70kDa, V1 Subunit A; V-Type Proton ATPase (V-ATPase) Catalytic Subunit A; V-Type Proton ATPase Catalytic Subunit A; Vacuolar Proton Pump Subunit Alpha; ATPase, H ⁺ Transporting, Lysosomal (Vacuolar Proton Pump),
Alternative Names	Alpha Polypeptide, 70kD, Isoform 1; H ⁺ -Transporting ATPase Chain A, Vacuolar (VA68 Type); ATPase, H ⁺ Transporting, Lysosomal, Subunit A1; H(+)-Transporting Two-Sector ATPase, Subunit A; Vacuolar Proton Pump Alpha Subunit 1; Vacuolar ATPase Isoform VA68; V-ATPase 69 KDa Subunit 1; Vacuolar-Type H(+)-ATPase; V-ATPase 69 KDa Subunit; V-ATPase A Subunit 1; EC 3.6.3.14; EC 7.1.2.2; EC 3.6.3; ARCL2D; IECEE3; DEE93; HO68
Gene ID	523.0

SwissProt ID	P38606
Immunogen	Recombinant protein of human ATP6V1A

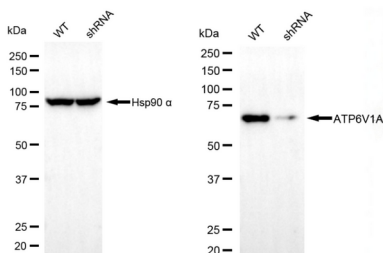
Background

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. Transcript variants derived from alternative polyadenylation exist. [provided by RefSeq, Jul 2008]

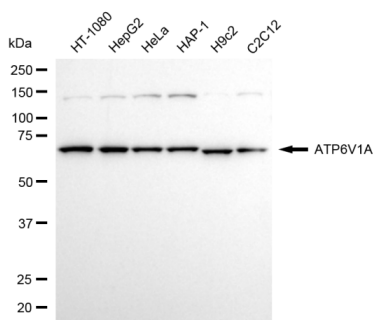
Research Area

Tags & Cell Markers, Signal Transduction

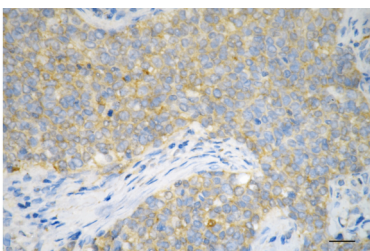
Image Data



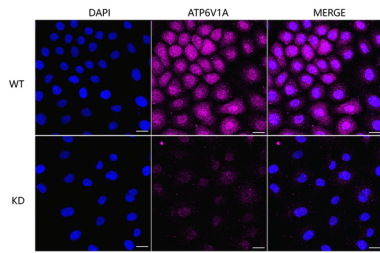
Western blotting analysis using ATP6V1A antibody (KVA00617). ATP6V1A expression in wild-type (WT) and ATP6V1A shRNA knockdown (KD) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with ATP6V1A antibody (KVA00617, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



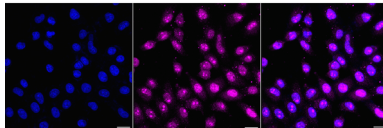
Western blotting analysis using ATP6V1A antibody (KVA00617). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ATP6V1A antibody (KVA00617, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



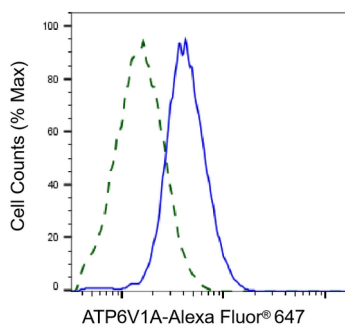
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using ATP6V1A antibody (KVA00617, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



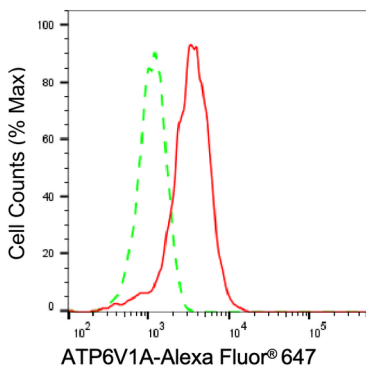
Immunocytochemical staining of HT-1080 cells using ATP6V1A antibody (KVA00617, 1:1,000), Top panel: wild-type (WT); Bottom panel: ATP6V1A shRNA knockdown (KD). Nuclei were stained blue with DAPI; ATP6V1A was stained magenta with Alexa Fluor® 647. Scale bar, 20 μm. Permeabilization: Triton.



Immunocytochemical staining of HepG2 cells with ATP6V1A antibody (KVA00617, 1:1,000) . Nuclei were stained blue with DAPI; ATP6V1A was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar, 20 μm.



Validation of ATP6V1A knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HT-1080 cells were stained with ATP6V1A antibody (KVA00617, 1:2,000) and analyzed using BD flow cytometer.



Flow cytometric analysis of ATP6V1A expression in HepG2 cells using ATP6V1A antibody (KVA00617, 1:2,000). Green, isotype control; red, ATP6V1A.