

Product Name: KO-Validated ATP1A1 Recombinant Rabbit Monoclonal Antibody
Catalog #: KVAb00052

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Rabbit
Application	WB,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 1:2,000-1:10,000; IHC-P 1:100-1:200
Molecular Weight	Calculated MW: 112.9kDa

Antigen Information

Gene Name	ATP1A1 ATP1A1; ATPase Na ⁺ /K ⁺ Transporting Subunit Alpha 1; Sodium/Potassium-Transporting ATPase Subunit Alpha-1; Sodium Pump Subunit Alpha-1; Sodium-Potassium ATPase Catalytic Subunit Alpha-1; ATPase, Na ⁺ /K ⁺ Transporting, Alpha 1 Polypeptide; Na(+)/K(+)
Alternative Names	ATPase Alpha-1 Subunit; Na,K-ATPase Catalytic Subunit Alpha-A Protein; Sodium-Potassium-ATPase, Alpha 1 Polypeptide; Na, K-ATPase, Alpha-A Catalytic Polypeptide; Na,K-ATPase Alpha-1 Subunit; Na ⁺ /K ⁺ ATPase 1; EC 7.2.2.13; EC 3.6.3.9; HOMGSMR2; EC 3.6.3; CMT2DD
Gene ID	476.0
SwissProt ID	P05023
Immunogen	A synthesized peptide derived from human Sodium Potassium ATPase

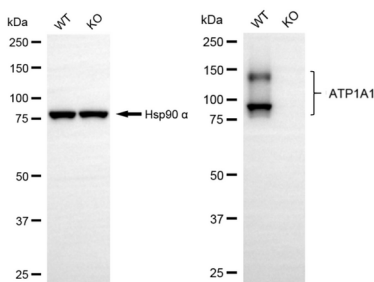
Background

The protein encoded by this gene belongs to the family of P-type cation transport ATPases, and to the subfamily of Na⁺/K⁺ -ATPases. Na⁺/K⁺ -ATPase is an integral membrane protein responsible for establishing and maintaining the electrochemical gradients of Na and K ions across the plasma membrane. These gradients are essential for osmoregulation, for sodium-coupled transport of a variety of organic and inorganic molecules, and for electrical excitability of nerve and muscle. This enzyme is composed of two subunits, a large catalytic subunit (alpha) and a smaller glycoprotein subunit (beta). The catalytic subunit of Na⁺/K⁺ -ATPase is encoded by multiple genes. This gene encodes an alpha 1 subunit. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2009]

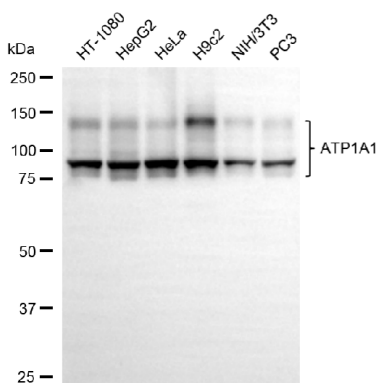
Research Area

Neuroscience, Signal Transduction, Metabolism

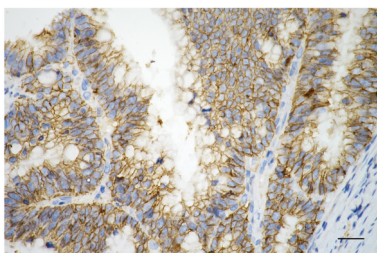
Image Data



Western blotting analysis using ATP1A1 antibody (KVA00052). ATP1A1 expression in wild-type (WT) and ATP1A1 knockout (KO) HeLa cells with 20 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with ATP1A1 antibody (KVA00052, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Western blotting analysis using ATP1A1 antibody (KVA00052). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with ATP1A1 antibody (KVA00052, 1:10,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



Immunohistochemistry was performed on paraffin-embedded human sigmoid colon carcinoma using ATP1A1 antibody (KVA00052, 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.