

For Research Use Only

# ATP1A2 Polyclonal antibody

Catalog Number: 16836-1-AP **17 Publications**



## Basic Information

<b>Catalog Number:</b> 16836-1-AP	<b>GenBank Accession Number:</b> BC052271	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 700 µg/ml by Nanodrop;	<b>GeneID (NCBI):</b> 477	<b>Recommended Dilutions:</b> WB 1:500-1:2000 IHC 1:50-1:500 IF 1:10-1:100
<b>Source:</b> Rabbit	<b>UNIPROT ID:</b> P50993	
<b>Isotype:</b> IgG	<b>Full Name:</b> ATPase, Na <sup>+</sup> /K <sup>+</sup> transporting, alpha 2 (+) polypeptide	
<b>Immunogen Catalog Number:</b> AG10515	<b>Calculated MW:</b> 1020 aa, 112 kDa	
	<b>Observed MW:</b> 97-100 kDa	

## Applications

### Tested Applications:

WB, IF, FC, IHC, ELISA

### Cited Applications:

WB, IF, IHC

### Species Specificity:

human, mouse, rat

### Cited Species:

human, rat, mouse, Haliotis discus hannai, canine

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

**WB:** 37°C incubated mouse heart tissue, 37°C incubated mouse skeletal muscle tissue

**IHC:** mouse heart tissue, human kidney tissue, human testis tissue, human skin tissue, human heart tissue

**IF:** HeLa cells,

## Background Information

ATP1A2 (Na<sup>+</sup>/K<sup>+</sup>-ATPase α-2 subunit) is the catalytic component of the active enzyme Na<sup>+</sup>/K<sup>+</sup>-ATPase, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. The Na<sup>+</sup>/K<sup>+</sup>-ATPase is composed of a larger catalytic α-subunit (~110 kDa) and a small β-subunit (~55 kDa). The α subunit has four isoforms identified to date: α1, α2, α3 and α4. The α1 isoform is expressed ubiquitously but the α2 isoform is present largely in the skeletal muscle, heart and vascular smooth muscle. The α3 isoform is found almost exclusively in neurons and ovaries. The α4 isoform is expressed in sperm. This antibody was raised against the internal region of the human ATP1A2 and can recognize all the isoforms of a subunit. The 65kDa band detected occasionally may be the degradation product of ATP1A2.

## Notable Publications

Author	Pubmed ID	Journal	Application
Ji Zhu	28970012	Eur J Pharmacol	WB
Yanglei Jia	30245637	Front Physiol	WB
Mariarosaria Cammarota	34481380	Biomed Pharmacother	WB,IF

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

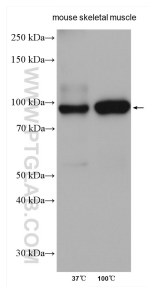
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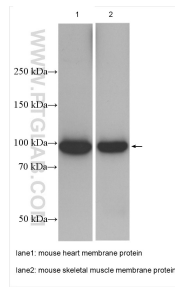
E: proteintech@ptglab.com  
W: ptglab.com

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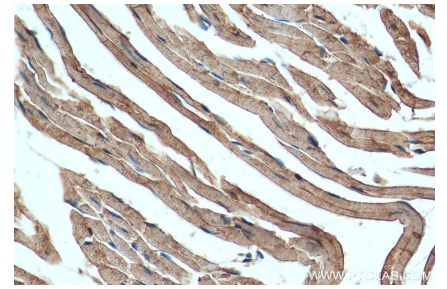
## Selected Validation Data



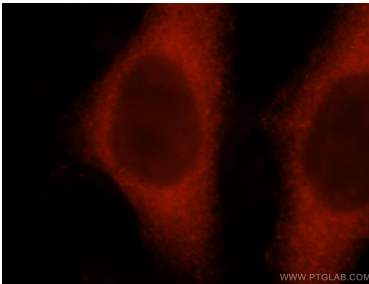
37 °C incubated or boiled mouse skeletal muscle lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



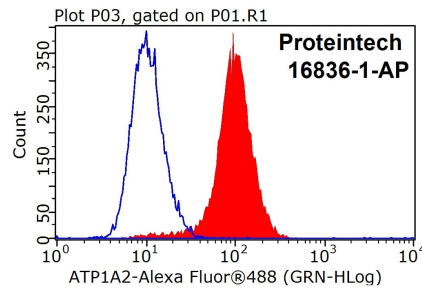
Various lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded mouse heart tissue slide using 16836-1-AP (ATP1A2 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of HeLa cells, using ATP1A2 antibody 16836-1-AP at 1:25 dilution and Rhodamine-labeled goat anti-rabbit IgG (red).



1X10<sup>6</sup> HeLa cells were stained with 0.5ug ATP1A2 antibody (16836-1-AP, red) and control antibody (blue). Fixed with 4% PFA blocked with 3% BSA (30 min). FITC-Goat anti-Rabbit IgG with dilution 1:100.