

ATP1A2 Polyclonal antibody

Catalog Number: 16836-1-AP

25 Publications

Basic Information

Catalog Number:

16836-1-AP

Concentration:

700 ug/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG10515

GenBank Accession Number:

BC052271

GeneID (NCBI):

477

UNIPROT ID:

P50993

Full Name:

ATPase, Na⁺/K⁺ transporting, alpha 2

(+) polypeptide

Calculated MW:

1020 aa, 112 kDa

Observed MW:

97-100 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:500-1:2000

IHC: 1:50-1:500

IF/ICC: 1:200-1:800

FC (Intra): 0.25 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

WB, IHC, IF/ICC, FC (Intra), ELISA

Cited Applications:

WB, IHC, IF

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, canine, haliotis discus hannai

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/ICC : C2C12 cells,

FC (Intra) : HeLa cells,

Background Information

ATP1A2 (Na⁺/K⁺-ATPase α-2 subunit) is the catalytic component of the active enzyme Na⁺/K⁺-ATPase, which catalyzes the hydrolysis of ATP coupled with the exchange of sodium and potassium ions across the plasma membrane. The Na⁺/K⁺-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: α 1, α 2, α 3 and α 4. The α 1 isoform is expressed ubiquitously but the α 2 isoform is present largely in the skeletal muscle, heart and vascular smooth muscle. The α 3 isoform is found almost exclusively in neurons and ovaries. The α 4 isoform is expressed in sperm. This antibody was raised against the internal region of the human ATP1A2 and can recognize all the isoforms of α 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, pH7.3

Aliquoting is unnecessary for -20°C storage

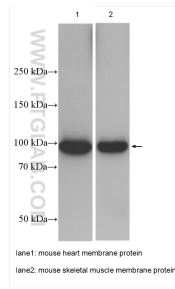
For technical support and original validation data for this product please contact:

T: 4006900926

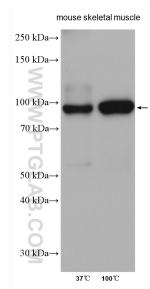
E: Proteintech-CN@ptglab.comW: ptgcn.com

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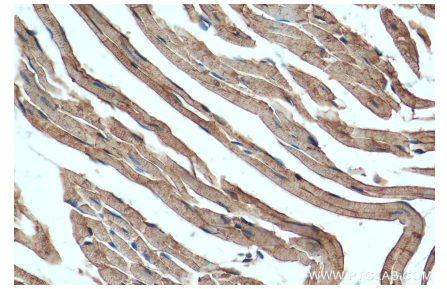
Selected Validation Data



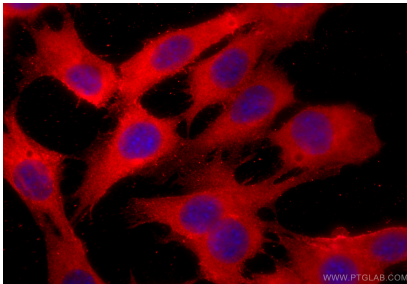
Various lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



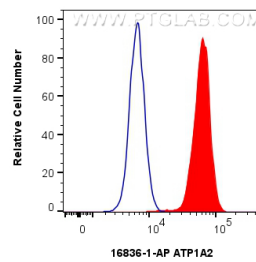
37 °C incubated or boiled mouse skeletal muscle lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



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 (-20°C Ethanol) fixed C2C12 cells using ATP1A2 antibody (16836-1-AP) at dilution of 1:400 and CoraLite®594-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-4).



1×10^6 HeLa cells were intracellularly stained with 0.25 ug ATP1A2 Polyclonal antibody (16836-1-AP) and CoraLite®488-Conjugated Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).