For Research Use Only

ATP1A2 Polyclonal antibody

Catalog Number:16836-1-AP 23 Publications

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Basic Information

Catalog Number:
16836-1-AP

Size:
150ul , Concentration: 700 ug/ml by Nanodrop;

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

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,

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: 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 recognizes 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

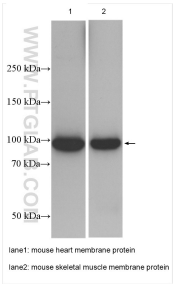
Storage

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

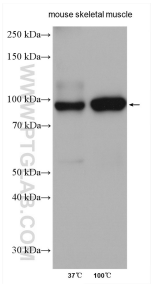
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

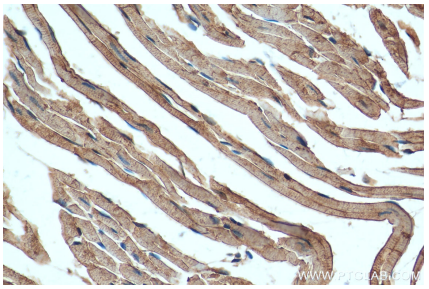
Selected Validation Data



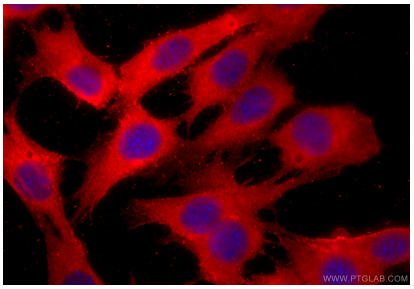
Various lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



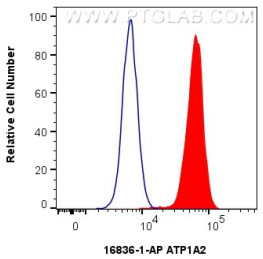
37 °C incubated or boiled mouse skeletal muscle lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



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).



1x10^6 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).