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

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

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: 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 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

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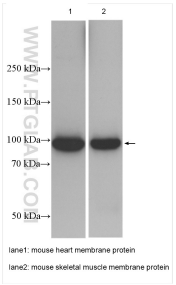
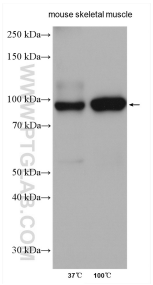
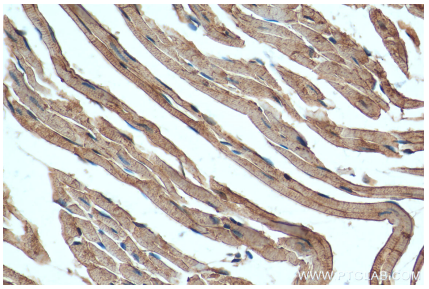
Selected Validation Data



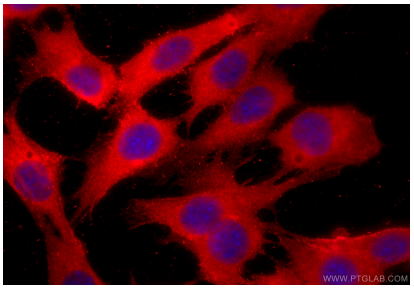
Various lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



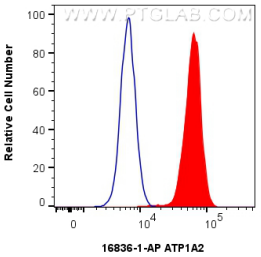
37 ℃ incubated or boiled mouse skeletal muscle lysates were subjected to SDS PAGE followed by western blot with 16836-1-AP (ATP1A2 antibody) at dilution of 1:2000 incubated at room temperature for 1.5 hours.



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).