For Research Use Only

ATP1A1 Polyclonal antibody

Catalog Number:14418-1-AP Featured Product 163 Publications

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Basic Information

Catalog Number:
14418-1-AP

Size:
600 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG5763

GenBank Accession Number:
BC050359

GeneID (NCBI):
476

ENSEMBL Gene ID:
ENSG00000163399

UNIPROT ID:
P05023

Full Name:
ATPase, Na+/K+ transporting, alpha 1 polypeptide

Calculated MW:
113 kDa

Observed MW:
100-110 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:5000-1:20000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:20-1:400
IF 1:400-1:1600

Applications

Tested Applications:
IF/ICC, IHC, IP, WB, ELISA

Cited Applications:
CoIP, IF, IHC, IP, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, chicken, rat, mouse, pig

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

For optimal WB detection with 14418-1-AP, we do not recommend boiling the sample after lysis.

Positive Controls:

WB : mouse heart tissue, HEK-293 cells, 37°C incubated HEK-293 cells, 37°C incubated mouse brain tissue, rat heart tissue

IP : HEK-293 cells, A431 cells

IHC : human liver cancer tissue, human ovary tumor tissue

IF : Caco-2 cells, HEK-293 cells

Background Information

ATP1A1 is the catalytic component of Na+/K+-ATPase which is a membrane bound enzyme primarily involved in generation of Na+ and K+ gradients across plasma membranes and in determination of cytoplasmic Na+ levels. ATP1A1 is a ubiquitously expressed membrane protein and often used as the marker or internal control for plasma membrane protein. For optimal WB detection of this membrane protein, we recommend to avoid boiling the sample after lysis.

Notable Publications

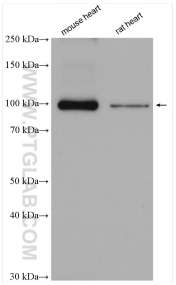
Author	Pubmed ID	Journal	Application
Zhen-Ning Lu	31568987	Biomed Pharmacother	WB
Raphael Berges	30250248	Cell Death Dis	WB
Hideaki Kuge	32963038	J Lipid Res	WB

Storage

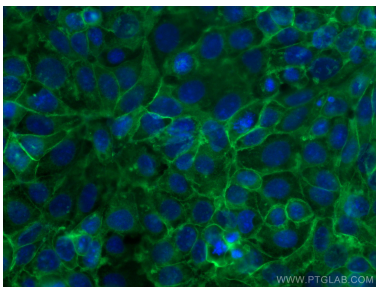
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

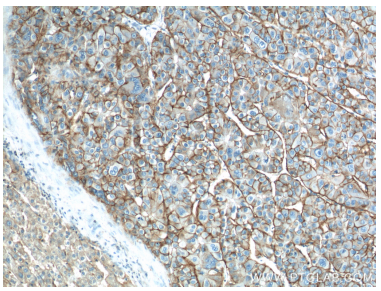
Selected Validation Data



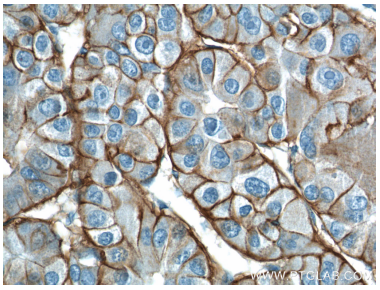
Various lysates were subjected to SDS PAGE followed by western blot with 14418-1-AP (ATP1A1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



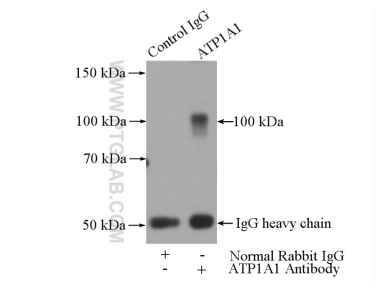
Immunofluorescent analysis of (-20°C Methanol) fixed Caco-2 cells using ATP1A1 antibody (14418-1-AP) at dilution of 1:800 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



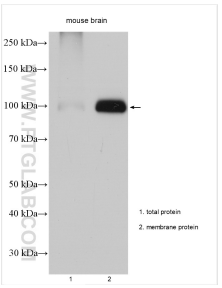
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 14418-1-AP (ATP1A1 Antibody) at dilution of 1:200 (under 10x lens).



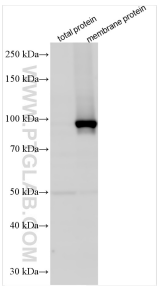
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 14418-1-AP (ATP1A1 Antibody) at dilution of 1:200 (under 40x lens).



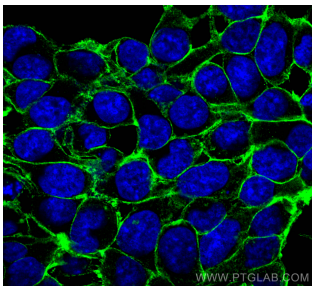
IP result of anti-ATP1A1 (IP:14418-1-AP, 4ug; Detection:14418-1-AP 1:300) with HEK-293 cells lysate 2800ug.



37°C incubated mouse brain total extract lysate and membrane extract lysate were subjected to SDS PAGE followed by western blot with 14418-1-AP (ATP1A1 antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



37°C incubated HEK-293 membrane extract lysate were subjected to SDS PAGE followed by western blot with 14418-1-AP (ATP1A1 antibody) at dilution of 1:100000 incubated at room temperature for 1.5 hours.



Immunofluorescent analysis of (-20°C Methanol) fixed HEK-293 cells using ATP1A1 antibody (14418-1-AP) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).