

For Research Use Only

ATP1A1-Specific Polyclonal antibody

Catalog Number: 55187-1-AP

Featured Product

20 Publications



Basic Information

Catalog Number:

55187-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

GenBank Accession Number:

NM_000701

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: 1:5000-1:50000

IHC: 1:500-1:2000

IF/ICC: 1:500-1:2000

FC (Intra): 0.40 ug per 10⁶ cells in a 100 µl suspension

Applications

Tested Applications:

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

Cited Applications:

WB, IF

Species Specificity:

human, mouse

Cited Species:

human, mouse, rat

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 brain tissue, HEK-293 cells, HepG2 cells, MCF-7 cells, 37°C incubated mouse heart tissue, Neuro-2a cells

IHC : human ovary cancer tissue, human colon tissue, human kidney tissue, human liver cancer tissue, mouse kidney tissue

IF/ICC : HEK-293 cells, Caco-2 cells

FC (Intra) : 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. This antibody is specific to ATP1A1.

Notable Publications

Author	Pubmed ID	Journal	Application
Jun Lin	34514733	Adv Sci (Weinh)	WB
Yan Xu	27857155	Sci Rep	IF
Yuetao Wen	35609730	Neurosci 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, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

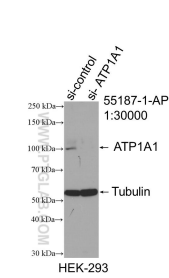
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

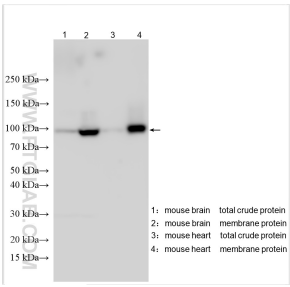
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

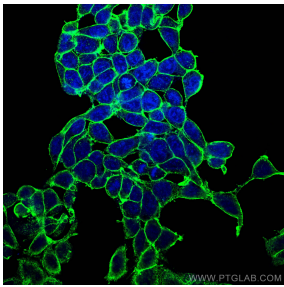
Selected Validation Data



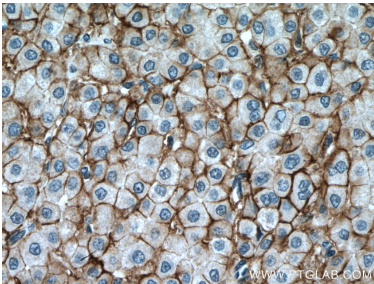
WB result of ATP1A1-Specific antibody (55187-1-AP; 1:30000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ATP1A1-Specific transfected HEK-293 cells.



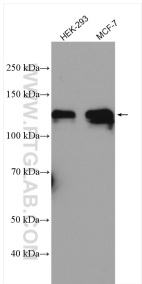
37°C incubated mouse brain membrane extract lysate and 37°C incubated mouse heart membrane extract lysate were subjected to SDS PAGE followed by western blot with 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:40000 incubated at room temperature for 1.5 hours.



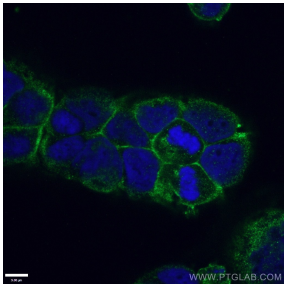
Immunofluorescent analysis of (-20°C Methanol) fixed HEK-293 cells using ATP1A1-Specific antibody (55187-1-AP) at dilution of 1:1000 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



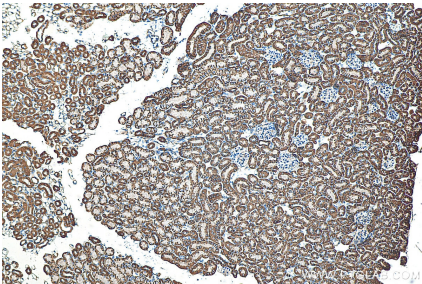
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



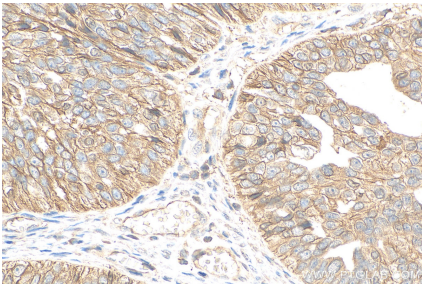
Various lysates were subjected to SDS PAGE followed by western blot with 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:4000 incubated at room temperature for 1.5 hours.



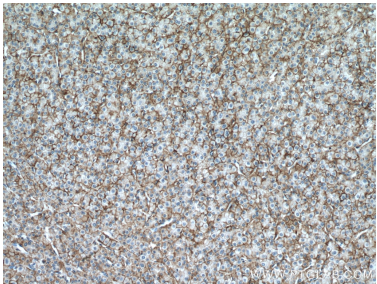
Immunofluorescent analysis of (4% PFA) fixed Caco-2 cells using 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:100 and CoraLite488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



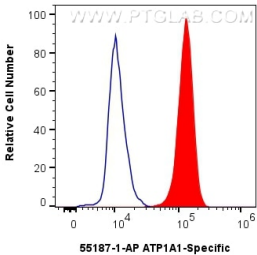
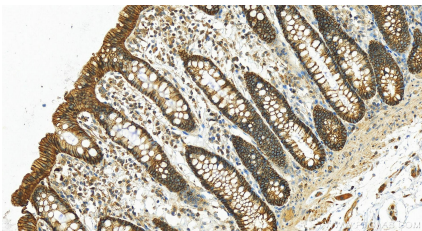
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue slide using 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:400 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human ovary cancer tissue slide using 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human normal colon slide using 55187-1-AP (ATP1A1-Specific antibody) at dilution of 1:800 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).

1x10⁶ HEK-293 cells were intracellularly stained with 0.4 ug ATP1A1-Specific Polyclonal antibody (55187-1-AP) and CoraLite® 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2) (red), or 0.4 ug Rabbit IgG control Rabbit PolyAb (30000-0-AP) (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).