For Research Use Only

Alpha 1 Antitrypsin Polyclonal antibody

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Catalog Number:16382-1-AP 20 Publications

Basic Information

Catalog Number:
16382-1-AP

Size:
150ul , Concentration: 600 μg/ml by Nanodrop;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG9369

GenBank Accession Number:
BC015642

GeneID (NCBI):
5265

Full Name:
serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1

Calculated MW:
418 aa, 47 kDa

Observed MW:
47 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:2000-1:10000
IP 0.5-4.0 ug for IP and 1:2000-1:10000 for WB
IHC 1:400-1:1600
IF 1:200-1:800

Applications

Tested Applications:
FC, IF, IHC, IP, WB, ELISA

Cited Applications:
IF, IHC, WB

Species Specificity:
human, mouse, rat

Cited Species:
human, rat, MOUSE

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 : human saliva tissue, human kidney tissue, human urine sample, mouse liver tissue, mouse skin tissue, mouse kidney tissue, mouse lung tissue

IP : mouse kidney tissue,

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

IF : HepG2 cells,

Background Information

SERPINA1 is the gene for a protein called alpha-1-antitrypsin (AAT), which is a serine protease inhibitor whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. AAT is a glycoprotein synthesized primarily by hepatocytes, with smaller amountssynthesized by intestinal epithelial cells, neutrophils, pulmonary alveolar cells and macrophages. AAT is the most abundant, endogenous serine protease inhibitor in blood circulation and it has been implicated in regulating vital fluid phase biological events such as blood coagulation, fibrinolysis, complement activation, apoptosis, reproduction, tumor progression and inflammatory response. The primary function of AAT is thought to be the inactivation of neutrophil elastase and other endogenous serine proteases. Defects in SERPINA1 can cause emphysema or liver disease.

Notable Publications

Author	Pubmed ID	Journal	Application
Mehrpouya B Mobin	27665711	Nat Commun	WB
Eman Khatib-Massalha	29046295	Am J Physiol Renal Physiol	WB
Jifeng Yang	36228974	J Nutr Biochem	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

*** 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)
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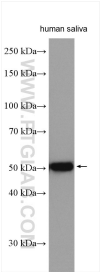
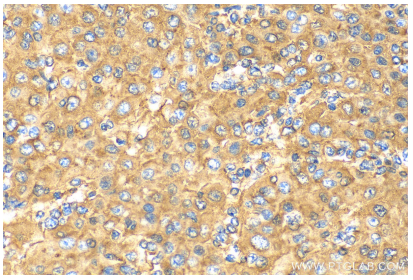
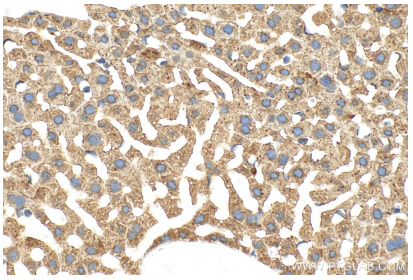
Selected Validation Data



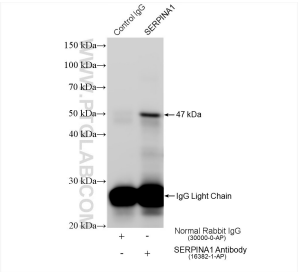
human saliva tissue were subjected to SDS PAGE followed by western blot with 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



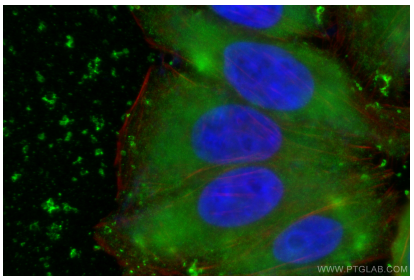
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 16382-1-AP (Alpha 1 Antitrypsin antibody) at dilution of 1:400 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



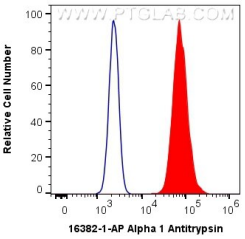
Immunohistochemical analysis of paraffin-embedded mouse liver tissue slide using 16382-1-AP (Alpha 1 Antitrypsin antibody) at dilution of 1:800 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-Alpha 1 Antitrypsin(IP:16382-1-AP, 4ug; Detection:16382-1-AP 1:5000) with mouse kidney tissue lysate 2160 ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Alpha 1 Antitrypsin antibody (16382-1-AP) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L), CL594-phalloidin (red).



1X10^6 HepG2 cells were intracellularly stained with 0.4 ug Anti-Human Alpha 1 Antitrypsin (16382-1-AP) and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) at dilution 1:1000 (red), or 0.4 ug Isotype Control. Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C).