

For Research Use Only

Alpha 1 Antitrypsin Polyclonal antibody



Catalog Number: 16382-1-AP

18 Publications

Basic Information

Catalog Number: 16382-1-AP	GenBank Accession Number: BC015642	Purification Method: Antigen affinity purification
Size: 150ul , Concentration: 600 µg/ml by Nanodrop and 480 µg/ml by Bradford method using BSA as the standard;	GeneID (NCBI): 5265	Recommended Dilutions: WB 1:2000-1:10000 IP 0.5-4.0 ug for IP and 1:500-1:2000 for WB
Source: Rabbit	Full Name: serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1	IHC 1:50-1:500
Isotype: IgG	Calculated MW: 418 aa, 47 kDa	
Immunogen Catalog Number: AG9369	Observed MW: 47 kDa	

Applications

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

Cited Applications:
IF, IHC, WB

Species Specificity:
human, mouse, rat

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 : 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 : human liver cancer tissue, human hepatocirrhosis tissue, mouse liver tissue

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 amounts synthesized 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

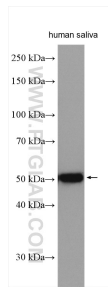
For technical support and original validation data for this product please contact:

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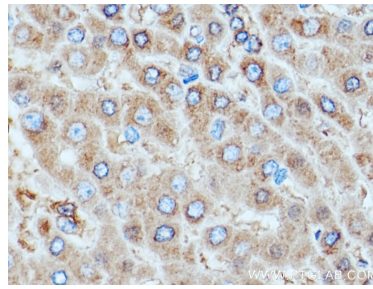
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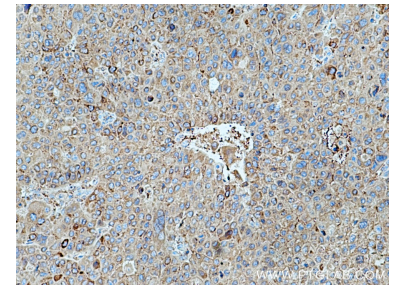
Selected Validation Data



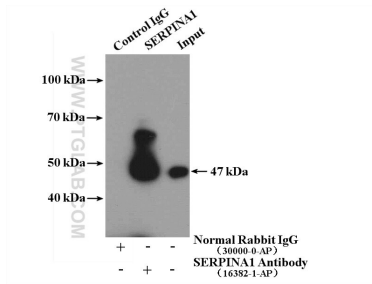
Various lysates were subjected to SDS PAGE followed by western blot with 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



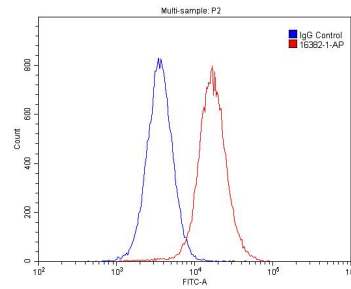
Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:200 (under 10x 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 1:1000) with mouse kidney tissue lysate 7200ug.



1x10⁶ HepG2 cells were stained with 0.2ug Alpha-1-Antitrypsin antibody (16382-1-AP, red) and control antibody (blue). Cells were fixed with 4% PFA and permeabilized with 0.1% Triton X-100. Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.