For Research Use Only

Alpha 1 Antitrypsin Polyclonal antibody

Catalog Number: 16382-1-AP 20 Publications

Basic Information

Catalog Number: 16382-1-AP
Size: 150μl, Concentration: 600 μg/ml by Nanodrop and 480 μg/ml by Bradford method using BSA as the standard
Source: Rabbit
Isotype: IgG
Immunogen Catalog Number: AG9569

GenBank Accession Number: BC015642
GenelD (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 μg for IP and 1:2000-1:10000 for WB, IHC 1:200-1:800

Applications

Tested Applications: FC, 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: human liver cancer 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 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

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<td>Mehropouya B Mobin</td>
<td>27665711</td>
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<td>Eman Khatib-Massalha</td>
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<td>Jifeng Yang</td>
<td>36228974</td>
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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

*** 20μl sizes contain 0.1% BSA

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

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.

1X10^6 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.