**Basic Information**

- **Catalog Number:** 16382-1-AP
- **Size:** 72 μg/150 μl
- **Source:** Rabbit
- **Isotype:** IgG
- **Purification Method:** Antigen affinity purification
- **Immunogen Catalog Number:** AG9369
- **GenBank Accession Number:** BCO1H962
- **GeneID (NCBI):** 5265
- **Full Name:** serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1
- **Calculated MW:** 418aa, 47 kDa
- **Observed MW:** 47 kDa

**Recommended Dilutions:**
- **WB:** 1:500-1:2000
- **IP:** 0.5-4.0 μg for IP and 1:500-1:2000 for WB
- **IHC:** 1:50-1:500

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

**Cited Applications:**
- IHC, WB

**Species Specificity:** human, mouse, rat

**Cited Species:** human, mouse

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

**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 responses. The primary function of AAT is thought to be the inactivation of neutrophil elastase and other endogenous serine proteases. Defects in SERPNA1 can cause emphysema or liver disease.

**Notable Publications**

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<th>Author</th>
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<tr>
<td>Mehrpoury B Mobin</td>
<td>27955711</td>
<td>Nat Commun</td>
<td>WB</td>
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<tr>
<td>Eman Khatib-Massalha</td>
<td>29046065</td>
<td>Am J Physiol Renal Physiol</td>
<td>WB</td>
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<tr>
<td>Tian An</td>
<td>29149484</td>
<td>Mol Reprod Dev</td>
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**Storage**

- **Storage:** Store at -20°C. Stable for one year after shipment.
- **Storage Buffer:** PBS with 0.05% sodium azide and 50% glycerol pH 7.3.
- **Aliquoting is unnecessary for -20°C storage.

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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@ptglib.com
- W: ptglib.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.
mouse kidney tissue were subjected to SDS PAGE followed by western blot with 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.

Immunohistochemistry of paraffin-embedded human liver tissue slide using 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:200 (under 10x lens).

Immunohistochemistry of paraffin-embedded human liver tissue slide using 16382-1-AP (Alpha-1-Antitrypsin antibody) at dilution of 1:200 (under 40x lens).


100% HepG2 cells were stained with 0.2ug Alpha-1-Antitrypsin antibody (16382-1-AP) and control antibody (blue). Fixed with 4% PFA, blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1500.