

For Research Use Only

# Alpha-1-Antitrypsin Recombinant antibody, PBS Only

Catalog Number: 82918-1-PBS

Featured Product



## Basic Information

**Catalog Number:**

82918-1-PBS

**Size:**

100ug, Concentration: 1mg/ml by Nanodrop;

**Source:**

Rabbit

**Isotype:**

IgG

**Immunogen Catalog Number:**

AG9369

**GenBank Accession Number:**

BC015642

**GeneID (NCBI):**

5265

**UNIPROT ID:**

P01009

**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:**

Protein A purification

**CloneNo.:**

230109A8

## Applications

**Tested Applications:**

WB, IHC, FC (Intra), Indirect ELISA

**Species Specificity:**

human

## 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.

## Storage

**Storage:**

Store at -80°C.

**Storage Buffer:**

PBS Only

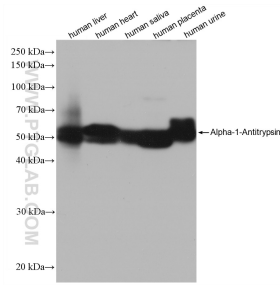
For technical support and original validation data for this product please contact:

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

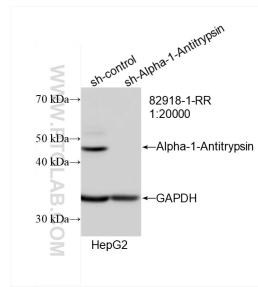
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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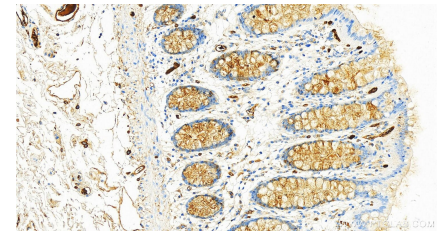
## Selected Validation Data



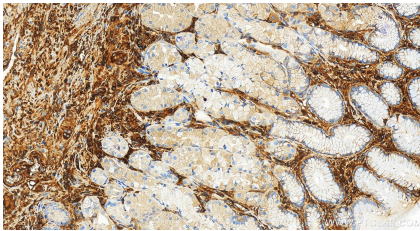
Various lysates were subjected to SDS PAGE followed by western blot with 82918-1-RR (Alpha-1-Antitrypsin antibody) at dilution of 1:32000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 82918-1-PBS in a different storage buffer formulation.



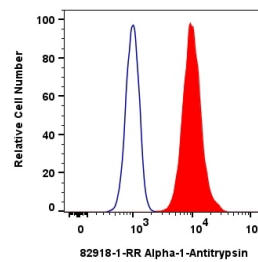
WB result of Alpha-1-Antitrypsin antibody (82918-1-RR; 1:20000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Alpha-1-Antitrypsin transfected HepG2 cells. This data was developed using the same antibody clone with 82918-1-PBS in a different storage buffer formulation.



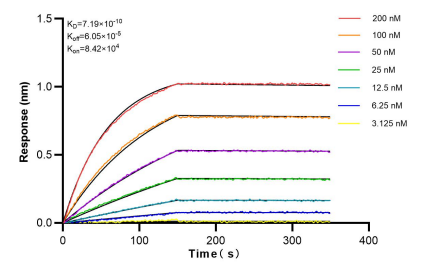
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82918-1-RR (Alpha-1-Antitrypsin antibody) at dilution of 1:6400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82918-1-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded human normal stomach slide using 82918-1-RR (Alpha-1-Antitrypsin antibody) at dilution of 1:6400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 82918-1-PBS in a different storage buffer formulation.



$1 \times 10^6$  HepG2 cells were intracellularly stained with 0.25 ug Alpha-1-Antitrypsin Recombinant antibody (82918-1-RR, Clone:230109A8) and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2)(red), or 0.25 ug Isotype Control (blue). Cells were fixed with 4% PFA and permeabilized with Flow Cytometry Perm Buffer (PF00011-C). This data was developed using the same antibody clone with 82918-1-PBS in a different storage buffer formulation.



Biolyer interferometry (BLI) kinetic assays of 82918-1-RR against Human Alpha-1-Antitrypsin were performed. The affinity constant is 0.719 nM.