For Research Use Only

Alpha-1-Antitrypsin Recombinant monoclonal antibody

Catalog Number:82918-1-RR Featured Product 2 Publications

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Basic Information

Catalog Number:
82918-1-RR

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

Recommended Dilutions:
WB: 1:5000-1:50000
IHC: 1:3200-1:12800
FC (Intra): 0.25 ug per 10^6 cells in a 100 ul suspension

Applications

Tested Applications:
WB, IHC, FC (Intra), ELISA

Cited Applications:
WB, IP

Species Specificity:
human

Cited Species:
human

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 liver tissue, HepG2 cells, human heart tissue, human saliva, human placenta tissue, human urine

IHC : human colon tissue, human stomach tissue

FC (Intra) : 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
Jemma Cooper	41800217	F1000Res	WB,IP
Jun Mou	40821817	Front Immunol	

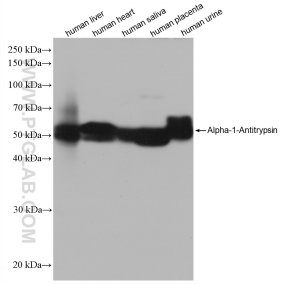
Storage

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

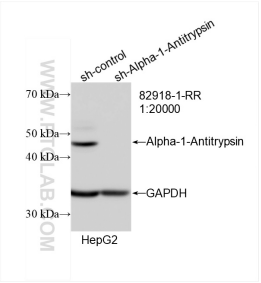
For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

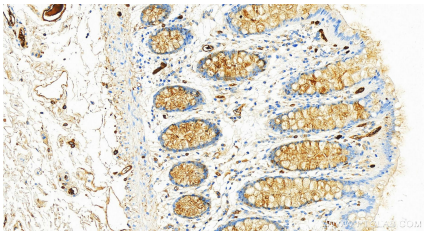
Selected Validation Data



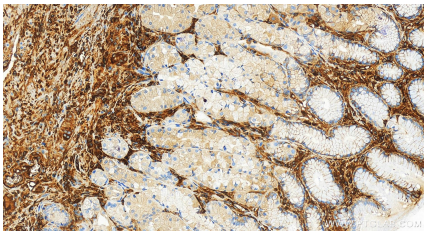
Various lysates were subjected to SDS PAGE followed by western blot with 82918-1-RR (Alpha-1-Antitrypsin antibody) at dilution of 1:32000 incubated at room temperature for 1.5 hours.



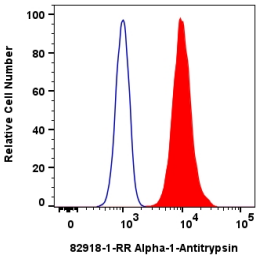
WB result of Alpha-1-Antitrypsin antibody (82918-1-RR; 1:20000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Alpha-1-Antitrypsin transfected HepG2 cells.



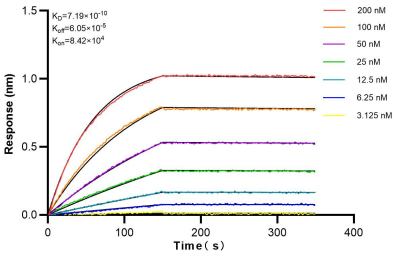
Immunohistochemical analysis of paraffin-embedded human colon tissue slide using 82918-1-RR (Alpha-1-Antitrypsin antibody) at dilution of 1:6400 (under 20x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



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).



1x10^6 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.



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