For Research Use Only

Alpha 1 Antitrypsin Monoclonal antibody

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Catalog Number:66135-1-Ig 7 Publications

Basic Information

Catalog Number:
66135-1-Ig

Size:
150ul , Concentration: 2280 μg/ml by Nanodrop and 847 μg/ml by Bradford method using BSA as the standard;

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG9516

GenBank Accession Number:
BC015642

GeneID (NCBI):
5265

Full Name:
serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1

Calculated MW:
418 aa, 47 kDa

Observed MW:
51 kDa

Purification Method:
Protein A purification

CloneNo.:
1A9G6

Recommended Dilutions:
WB 1:5000-1:50000
IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate
IHC 1:500-1:1000
IF 1:50-1:500

Applications

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

Cited Applications:
IF, IHC, WB

Species Specificity:
human, rat, mouse, pig

Cited Species:
human, 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 placenta tissue, HepG2 cells, rat liver tissue, human saliva, L02 cells, pig liver tissue, human plasma, human placenta, human milk, mouse liver tissue

IP : human plasma tissue,

IHC : human liver tissue,

IF : 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
Sang Luo	34926672	Ann Transl Med	WB,IF
Bing Yu	32394491	Liver Int	IF
Sang Luo	34422999	Ann Transl Med	WB,IF

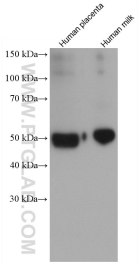
Storage

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

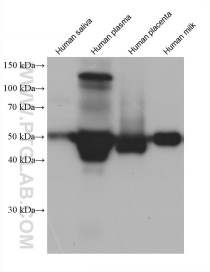
*** 20ul sizes contain 0.1%BSA

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
W: ptglab.com

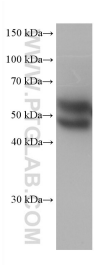
Selected Validation Data



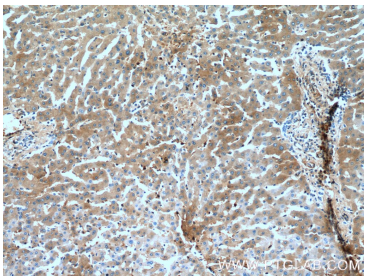
Various lysates were subjected to SDS PAGE followed by western blot with 66135-1-Ig (Alpha 1 Antitrypsin antibody) at dilution of 1:20000 incubated at room temperature for 1.5 hours.



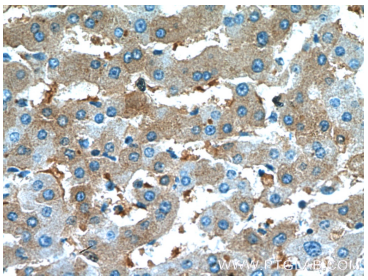
Various lysates were subjected to SDS PAGE followed by western blot with 66135-1-Ig (Alpha 1 Antitrypsin antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



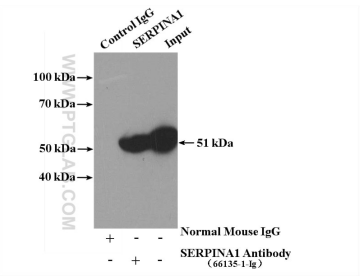
HepG2 cells were subjected to SDS PAGE followed by western blot with 66135-1-Ig (Alpha 1 Antitrypsin antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



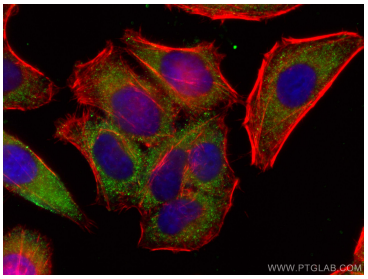
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66135-1-Ig (Alpha-1-Antitrypsin Antibody) at dilution of 1:1000 (under 10x lens).



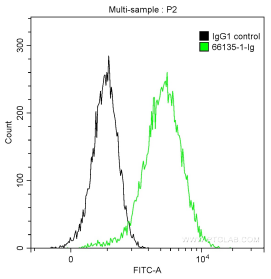
Immunohistochemical analysis of paraffin-embedded human liver tissue slide using 66135-1-Ig (Alpha-1-Antitrypsin Antibody) at dilution of 1:1000 (under 40x lens).



IP Result of anti-Alpha-1-Antitrypsin (IP:66135-1-Ig, 5ug; Detection:66135-1-Ig 1:1000) with human plasma lysate 4000ug.



Immunofluorescent analysis of (-20°C Ethanol) fixed HepG2 cells using Alpha 1 Antitrypsin antibody (66135-1-Ig, Clone: 1A9G6) at dilution of 1:200 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L), CL594-phalloidin (red).



1X10^6 HepG2 cells were intracellularly stained with 0.2 ug Anti-Human Alpha 1 Antitrypsin (66135-1-Ig, Clone:1A9G6) and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) at dilution 1:1000 (green), and 0.2 ug Mouse IgG1 Isotype Control (66360-1-Ig, Clone: T1F8D3F10) (black). Cells were fixed with 4% PFA and permeabilized with 0.1% TritonX-100.