



# AAT Polyclonal Antibody

<b>Catalog No</b>	BYab-04343
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Rat;Mouse;
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	SERPINA1
<b>Protein Name</b>	Alpha-1-antitrypsin
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from the N-terminal region of human SERPINA1. AA range:1-50
<b>Specificity</b>	AAT Polyclonal Antibody detects endogenous levels of AAT protein.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	WB: 1/500 - 1/2000. IHC-p: 1:100-1:300. ELISA: 1/10000.. IF 1:50-200
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	SERPINA1; AAT; PI; Alpha-1-antitrypsin; Alpha-1 protease inhibitor; Alpha-1-antiproteinase; Serpin A1
<b>Observed Band</b>	47kD
<b>Cell Pathway</b>	Secreted. Endoplasmic reticulum. The S and Z allele are not secreted effectively and accumulate intracellularly in the endoplasmic reticulum.; [Short peptide from AAT]: Secreted, extracellular space, extracellular matrix.
<b>Tissue Specificity</b>	Ubiquitous. Expressed in leukocytes and plasma.
<b>Function</b>	disease:Deficiency of the normal inhibitor in individuals homozygous for allele Z or M-Malton can result in the development of chronic emphysema or infantile liver cirrhosis.,disease:The major physiological function of AAT is the protection of the lower respiratory tract against proteolytic destruction by human leukocyte elastase (HLE). A hereditary deficiency of AAT, is associated with a 20-30 fold increased risk of developing chronic obstructive pulmonary disease.,disease:Variant Pittsburgh is the cause of bleeding diathesis.,domain:The reactive center loop (RCL) extends out from the body of the protein and directs binding to the target protease. The protease cleaves the

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serpin at the reactive site within the RCL, establishing a covalent linkage between the carboxyl group of the serpin reactive site and the serine hydroxyl of the protease. The resulting inactive serpin-protease complex

**Background**

The protein encoded by this gene is secreted and is a serine protease inhibitor whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. Defects in this gene can cause emphysema or liver disease. Several transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008],

**matters needing attention**

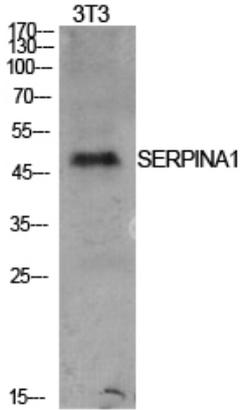
Avoid repeated freezing and thawing!

**Usage suggestions**

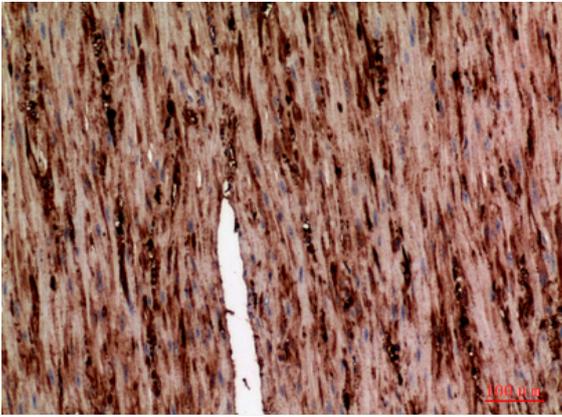
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



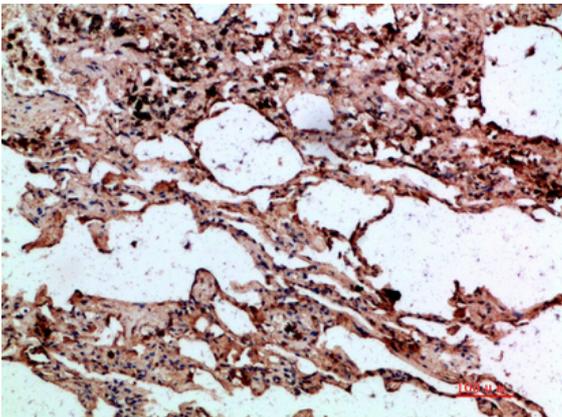
## Products Images



Western Blot analysis of NIH-3T3 cells using AAT Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-colon, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-lung, antibody was diluted at 1:200