

## AAT Monoclonal Antibody

<b>Catalog No :</b>	YM0005
<b>Reactivity :</b>	Human;Mouse
<b>Applications :</b>	WB;ELISA
<b>Target :</b>	AAT
<b>Fields :</b>	>>Complement and coagulation cascades
<b>Gene Name :</b>	SERPINA1
<b>Protein Name :</b>	Alpha-1-antitrypsin
<b>Human Gene Id :</b>	5265
<b>Human Swiss Prot No :</b>	P01009
<b>Immunogen :</b>	Purified recombinant fragment of human AAT expressed in E. Coli.
<b>Specificity :</b>	AAT Monoclonal 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>	Monoclonal, Mouse
<b>Dilution :</b>	WB 1:500 - 1:2000. ELISA: 1:10000. Not yet tested in other applications.
<b>Purification :</b>	Affinity purification
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Molecularweight :</b>	47kD
<b>Cell Pathway :</b>	Complement and coagulation cascades;
<b>P References :</b>	1. J Proteome Res. 2005 Nov-Dec;4(6):2070-80.

2. Neuro Endocrinol Lett. 2008 Aug;29(4):482-4.

## 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],

## Function :

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 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

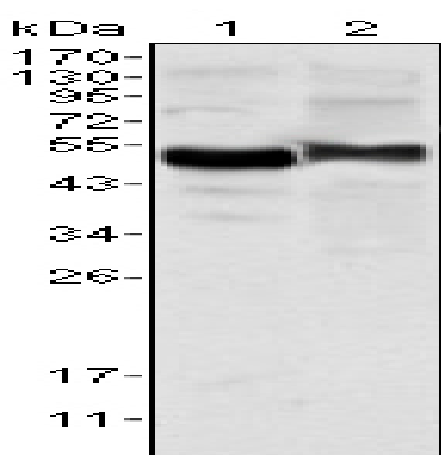
## Subcellular Location :

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.

## Expression :

Ubiquitous. Expressed in leukocytes and plasma.

## Products Images



Western Blot analysis using AAT Monoclonal Antibody against human plasma (1) and NIH/3T3 cell lysate (2).