



# Human $\alpha$ 1-Antitrypsin, $\alpha$ 1-AT ELISA Kit

<b>Product Code</b>	CSB-E11719h
<b>Abbreviation</b>	SERPINA1
<b>Protein Biological Process 1</b>	Immunity
<b>Target Name</b>	serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1
<b>Uniprot No.</b>	P01009
<b>Alias</b>	A1A, A1AT, AAT, MGC23330, MGC9222, PI, PI1, PRO2275, OTTHUMP00000197150 protease inhibitor 1 (anti-elastase), alpha-1-antitrypsin serine (or cysteine) proteinase inhibitor, clade A, member 1 serine
<b>Product Type</b>	ELISA Kit
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Protein Biological Process 3</b>	Acute phase
<b>Sample Types</b>	serum, plasma
<b>Detection Range</b>	78 nIU/mL-5000 nIU/mL
<b>Sensitivity</b>	19.5 nIU/mL
<b>Assay Time</b>	1-5h
<b>Sample Volume</b>	50-100ul
<b>Detection Wavelength</b>	450 nm
<b>Lead Time</b>	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
<b>Research Area</b>	Cardiovascular
<b>Gene Names</b>	SERPINA1
<b>Tag Info</b>	quantitative
<b>Protein Description</b>	Sandwich
<b>Description</b>	This Human SERPINA1 ELISA Kit was designed for the quantitative measurement of Human SERPINA1 protein in serum, plasma. It is a Sandwich ELISA kit, its detection range is 78 nIU/mL-5000 nIU/mL and the sensitivity is 19.5 nIU/mL.
<b>Target Details</b>	This protein 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.



## Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

## Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human  $\alpha$ 1-AT in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:1000	Average %	86
	Range %	80-92
1:2000	Average %	99
	Range %	91-105
1:4000	Average %	103
	Range %	92-110
1:8000	Average %	93
	Range %	86-98

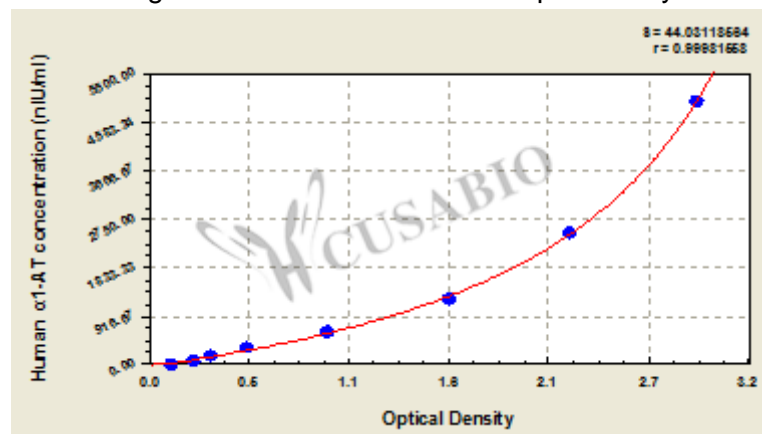
## Recovery

The recovery of human  $\alpha$ 1-AT spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	93	89-98
EDTA plasma (n=4)	95	90-100

## Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



nIU/ml	OD1	OD2	Average	Corrected
5000	2.943	2.903	2.923	2.797
2500	2.296	2.201	2.249	2.123
1250	1.633	1.589	1.611	1.485
625	0.927	0.989	0.958	0.832
312	0.533	0.521	0.527	0.401
156	0.348	0.334	0.341	0.215
78	0.256	0.236	0.246	0.120
0	0.130	0.122	0.126	?

**Msd**

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