

## Active Human Alpha 1-Antitrypsin Reference Standard

Cat. No. SERPINA1-4H Lot. No. (See product label)

### SPECIFICATION

<b>Species</b>	Human
<b>Description</b>	Alpha 1 proteinase inhibitor (Antitrypsin) has a characteristic secondary structure of beta sheets and alpha helices. That is a serum glycoprotein synthesized in the liver. It acts as an elastase inhibitor, primarily inhibiting neutrophil elastase, chymotrypsin, collagenase, leucocytic proteases, plasmin, and thrombin, which may be released during inflammatory reactions in the lung. Also Increase in Antitrypsin occurs as an acute phase response to tissue necrosis and inflammation. Serum level of Antitrypsin is elevated in rheumatoid arthritis, bacterial infections, vasculitis, and carcinomatosis.
<b>Form</b>	Liquid
<b>Bio-activity</b>	The level of alpha 1-Antitrypsin in the serum was quantified using ELISA.
<b>Usage</b>	For research use only, not for diagnostic or therapeutic use.
<b>Quality Control Test</b>	Generated from a human serum pool. This lot has been tested by standard laboratory procedures and found to be negative for HIV 1, HIV 2, Hepatitis B and Hepatitis C.
<b>Storage</b>	Stored at -20 °C, 4 °C for less than seven days, frozen for greater than seven days.
<b>Concentration</b>	2.97 mg/ml
<b>Preservative</b>	0.1% sodium azide

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

## GENE INFORMATION

<b>Gene Name</b>	SERPINA1 serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1 [ Homo sapiens ]
<b>Official Symbol</b>	SERPINA1
<b>Synonyms</b>	SERPINA1; serpin peptidase inhibitor, clade A (alpha-1 antiproteinase, antitrypsin), member 1; PI, serine (or cysteine) proteinase inhibitor, clade A (alpha 1 antiproteinase, antitrypsin), member 1; alpha-1-antitrypsin; A1A; A1AT; AAT; alpha 1 antitrypsin; alpha1AT; PI1; protease inhibitor 1 (anti elastase); serpin A1; alpha-1-antiproteinase; alpha-1-antitrypsin null; alpha-1 protease inhibitor; protease inhibitor 1 (anti-elastase), alpha-1-antitrypsin; serine (or cysteine) proteinase inhibitor, clade A, member 1; PI; PRO2275; MGC9222; MGC23330;
<b>Gene ID</b>	5265
<b>mRNA Refseq</b>	NM_000295
<b>Protein Refseq</b>	NP_000286
<b>MIM</b>	107400
<b>UniProt ID</b>	P01009
<b>Chromosome Location</b>	14q32.1
<b>Pathway</b>	Complement and Coagulation Cascades, organism-specific biosystem; Complement and coagulation cascades, organism-specific biosystem; Complement and coagulation cascades, conserved biosystem; FOXA1 transcription factor network,

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organism-specific biosystem; Hemostasis, organism-specific biosystem; Platelet activation, signaling and aggregation, organism-specific biosystem; Platelet degranulation, organism-specific biosystem;

**Function**

protease binding; protein binding; serine-type endopeptidase inhibitor activity; serine-type endopeptidase inhibitor activity;

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