

Human SerpinA1 ELISA Kit | SerpinA1 elisa kit

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CATALOG #
AAA258353

REACTIVITY
Human

PRODUCT SYNONYMS

SerpinA1; Human SerpinA1 ELISA Kit; SerpinA1 ELISA Kit; Human; serpin peptidase inhibitor; clade A (alpha-1 antiproteinase; antitrypsin); member 1; A1A ELISA Kit; A1AT ELISA Kit; AAT ELISA Kit; alpha1AT ELISA Kit; MGC23330 ELISA Kit; MGC9222 ELISA Kit; PI ELISA Kit; P11 ELISA Kit; PRO2275 ELISA Kit; SerpinA1 elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Human
Specificity	For the quantitative determination of Human SerpinA1 concentration in serum.
Assay Type	Solid Phase Sandwich ELISA (quantitative)
Sample Types	Serum
Detection Range	62.5-4000pg/mL
Sensitivity	26.37pg/mL
Conjugation	HRP
Materials Provided	1. 96 well microplate coated with Capture Antibody 2. Detection Antibody conjugated to HRP 3. Standards 4. Wash Buffer Concentrate 5. Dilution Buffer Concentrate 6. Color Reagent A 7. Color Reagent B 8. Stop Solution

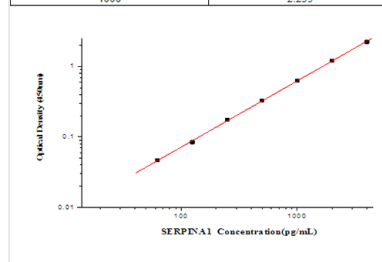
IMAGES

Recombinant human			
SERPINF2	SERPINA3	SERPINA6	SERPINA5
IL1	IL2	IL33	IL10
IL8	PDGF	TNF- α	IL4
IL6	IFN- γ	VEGF	MIP-1 β
TIMP1	TIMP2	GM-CSF	SCF
Recombinant mouse			
SERPINA1			
Recombinant rat			
SERPINA1			

Application Data

This assay recognizes both recombinant and natural Human SERPINA1. The factors listed below were prepared at 50ng/mL in dilution buffer and assayed for cross-reactivity. No cross-reactivity was observed.

Concentration (pg/mL)	Zero standard subtracted OD
0	0
62.5	0.047
125	0.084
250	0.174
500	0.327
1000	0.636
2000	1.215
4000	2.233



Standard Curve (Sample)

This standard curve is only for demonstration purposes. A standard curve should be generated for each assay

ADDITIONAL INFORMATION

Related Product Information for SerpinA1 elisa kit	This SerpinA1 ELISA Kit, Human is an enzyme-linked immunosorbent assay for the quantitative measurement of Human SerpinA1 protein in Serum. It contains recombinant Human SerpinA1, and antibodies raised against the recombinant protein. This ELISA kit is complete and ready-to-use. Background: SerpinA1, also known as Alpha-1 antitrypsin (AAT), is a prototype member of the Serpin superfamily of the serine protease inhibitors. This serine protease inhibitor blocks the protease, neutrophil elastase. Alpha-1 antitrypsin is mainly produced in the liver and acts as an antiprotease. Its principal function is to inactivate neutrophil elastase, preventing tissue damage. SerpinA1 (alpha1-antitrypsin), an acute phase protein and the classical neutrophil elastase inhibitor, is localized within lipid rafts in primary human monocytes in vitro. Its association with monocytes is inhibited by cholesterol depleting/efflux-stimulating agents (nystatin, filipin, MbetaCD (methyl-beta-cyclodextrin) and oxidized low-density lipoprotein (oxLDL) and conversely, enhanced by free cholesterol. Furthermore, SerpinA1/monocyte association per se depletes lipid raft cholesterol as characterized by the activation of extracellular signal-regulated kinase 2, formation of cytosolic lipid droplets, and complete inhibition of oxLDL uptake by monocytes. Previous population studies have suggested that heterozygote status for the AAT gene (SerpinA1) is a risk factor for chronic rhinosinusitis with nasal polyposis (CRSwNP). Alpha-1 antitrypsin deficiency is a recently identified genetic disease that occurs almost as frequently as cystic fibrosis. It is caused by various mutations in the SerpinA1 gene, and has numerous clinical implications. Alpha-1 antitrypsin deficiency is an inherited disease affecting the lung and liver. In the liver, alpha-1 antitrypsin deficiency may manifest as benign neonatal hepatitis syndrome; a small percentage of adults develop liver fibrosis, with progression to cirrhosis and hepatocellular carcinoma. Its most important physiologic functions are the protection of pulmonary tissue from aggressive proteolytic enzymes and regulation of pulmonary immune processes.
References	Khnlain T, et al. (2008) Alpha-1 antitrypsin deficiency: pathogenesis, clinical presentation, diagnosis, and treatment. Am J Med. 121(1): 3-9. Camelier AA, et al. (2008) Alpha-1 antitrypsin deficiency: diagnosis and treatment. J Bras Pneumol. 34(7): 514-27. Subramaniyam D, et al. (2010) Cholesterol rich lipid raft microdomains are gateway for acute phase protein, SERPINA1. Int J Biochem Cell Biol. 42(9): 1562-70. Kilty SJ, et al. (2010) Polymorphisms in the SERPINA1 (Alpha-1-Antitrypsin) gene are associated with severe chronic rhinosinusitis unresponsive to medical therapy. Am J Rhinol Allergy. 24(1): e4-9.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.