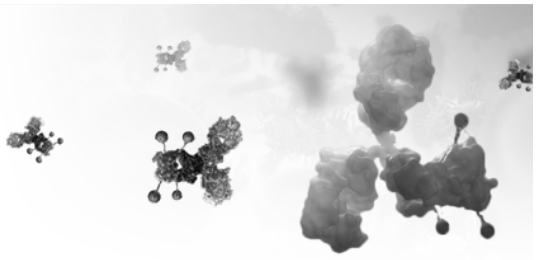

# Rabbit Anti-Human SerpinA1 monoclonal antibody, clone S253 (CABT-ZB667)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

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|---|---|
| **Specificity** | It reacts with Human SerpinA1 |
| **Target** | SERPINA1 |
| **Immunogen** | Recombinant Human SerpinA1 Protein |
| **Isotype** | IgG1 |
| **Source/Host** | Rabbit |
| **Species Reactivity** | Human |
| **Clone** | S253 |
| **Purification** | Protein A purified |
| **Conjugate** | Unconjugated |
| **Applications** | ELISA(cap)<br>We recommend the following for sandwich ELISA (Capture - Detection):<br>CABT-ZB667 - CABT-ZB1004<br>This antibody will detect SerpinA1 in antibody pair set. [ABPR-ZB246] |
| **Preparation** | This antibody was obtained from a rabbit immunized with purified, recombinant Human SerpinA1. |
| **Format** | Purified, Liquid |
| **Concentration** | Lot specific |
| **Size** | 50 µL, 100 µL, 1 mL |

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|---|---|
| **Buffer** | PBS |
| **Preservative** | None |
| **Storage** | This antibody can be stored at 2°C-8°C for one month without detectable loss of activity. Antibody products are stable for twelve months from date of receipt when stored at -20°C to -80°C. Preservative-Free. Avoid repeated freeze-thaw cycles. |
| **Ship** | Wet ice |

# BACKGROUND

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| **Introduction** | 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. |
| **Keywords** | Alpha-1 Antitrypsin; α1-antitrypsin; A1AT |

# GENE INFORMATION

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|---|---|
| **Synonyms** | Alpha-1 Antitrypsin; α1-antitrypsin; A1AT |
| **Entrez Gene ID** | 5265 |
| **UniProt ID** | P01009 |

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