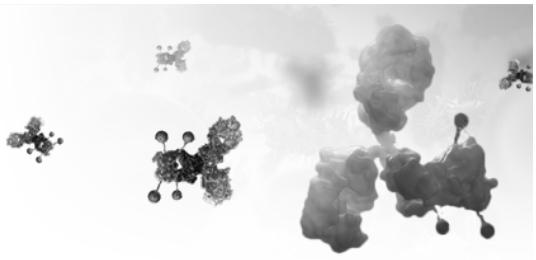

Sheep anti Human α1 Antitrypsin polyclonal antibody [HRP] (CABT-L502)

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

PRODUCT INFORMATION

Specificity	Prior to conjugation this antibody was specific for α1 AT as demonstrated by immunoelectrophoresis and ELISA.
Target	a1-Antitrypsin
Immunogen	Human α1 antitrypsin purified from plasma.
Isotype	IgG
Source/Host	Sheep
Species Reactivity	Human
Purification	Affinity purified
Conjugate	HRP
Applications	IEP, ELISA
Format	Liquid
Size	100 µg
Buffer	A buffered stabilizer solution containing 50% (v/v) glycerol.
Preservative	None
Storage	Store between -10 and -20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use. Avoid exposure to sodium azide as this is an inhibitor of peroxidase activity.

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BACKGROUND

Introduction	Alpha 1Antitrypsin (α1AT), also known as Alpha 1Proteinase inhibitor (α1PI), is the most abundant protease inhibitor in blood and a member of the SERPIN family of proteinase inhibitors. Serum levels are typically 1.3 mg/ml (25 μM) but α1AT is an acute phase protein and concentrations can rise four-fold during inflammatory episodes or tissue injury. Low levels in circulation have been associated with pulmonary disease such as emphysema. α1AT is a single chain molecule with a mass of 52,000 daltons that is produced primarily in the liver and to a lesser extent by blood monocytes and intestinal epithelium. Based on association rates, the primary target enzyme for α1AT is believed to be neutrophil elastase, but α1AT is a broad-spectrum inhibitor for many serine proteinases and the main role of α1AT in vivo is likely that of a "backup"inhibitor and proteinase scavenger in fluids and tissues. Although the association rates of α1AT with other enzymes are lower, the high concentration in plasma makes it an important inhibitor of activated Protein C, activated F.XI, thrombin and plasmin. Enzyme inhibition by α1AT occurs through proteolytic cleavage between Met358 and Ser359, which induces a conformational change in α1AT locking the enzyme into a stable, inactive 1:1 enzyme-inhibitor complex.
Keywords	Alpha-1 Antitrypsin;α1-antitrypsin;A1AT;

GENE INFORMATION

Entrez Gene ID	5265
UniProt ID	P01009

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