



# Goat anti Human $\alpha 2$ Antiplasmin ( $\alpha 2$ AP) polyclonal antibody (CABT-L496)

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

## PRODUCT INFORMATION

<b>Specificity</b>	This antibody is specific for $\alpha 2$ AP as demonstrated by immunoelectrophoresis and ELISA.
<b>Target</b>	$\alpha 2$ -Antiplasmin
<b>Immunogen</b>	Human $\alpha 2$ antiplasmin purified from plasma.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Goat
<b>Species Reactivity</b>	Human
<b>Purification</b>	Affinity purified
<b>Conjugate</b>	Unconjugated
<b>Applications</b>	IEP, ELISA
<b>Format</b>	Liquid
<b>Size</b>	0.5 mg
<b>Buffer</b>	10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.
<b>Preservative</b>	None
<b>Storage</b>	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.

## BACKGROUND

## Introduction

Alpha 2-Antiplasmin ( $\alpha$ 2AP), also known as Alpha 2-Plasmin Inhibitor ( $\alpha$ 2PI), is a member of the SERPIN family of proteinase inhibitors and the primary inhibitor of the enzyme plasmin in blood. It is produced in the liver and circulates in plasma at  $\sim 70 \mu\text{g/ml}$  ( $\sim 1 \mu\text{M}$ ).  $\alpha$ 2AP is a single chain molecule with a mass of 67 kDa as determined by SDS-PAGE. The primary target enzyme for  $\alpha$ 2AP is plasmin, but  $\alpha$ 2AP also acts as secondary or "backup" inhibitor of activated F.XI, activated Protein C and trypsin. Inhibition of these enzymes by  $\alpha$ 2AP occurs through proteolytic cleavage after Arg364 with subsequent rapid formation of a stable, inactive 1:1 enzyme- $\alpha$ 2AP complex.  $\alpha$ 2AP also acts to regulate fibrinolysis by binding to the lysine binding sites on plasminogen thus competitively inhibiting plasminogen binding to fibrin. About 30% of  $\alpha$ 2AP present in plasma is partially degraded and lacks a peptide in the carboxyl region that contains the plasminogen-binding site. This form of  $\alpha$ 2AP ( $\sim 65 \text{ kDa}$ ) has a reduced rate of plasmin inhibition and has been referred to as the "slow form" of  $\alpha$ 2AP. During fibrin formation, a portion of circulating  $\alpha$ 2AP is cross-linked to the  $\alpha$ -chain of fibrin by activated factor XIII, and this linking of plasmin inhibitor to the plasmin substrate provides an additional measure of protection to the fibrin clot from proteolysis by plasmin.

## Keywords

SERPINF2;serpin peptidase inhibitor, clade F (alpha-2 antiplasmin, pigment epithelium derived factor), member 2;AAP;API;PLI;A2AP;ALPHA-2-PI;alpha-2-antiplasmin;serpin F2;alpha-2-AP

# GENE INFORMATION

## Entrez Gene ID

[5345](#)

## UniProt ID

[P08697](#)