



Sheep anti Human Antithrombin polyclonal antibody [HRP] (CABT-L489)

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 antithrombin as demonstrated by immunoelectrophoresis and ELISA.
Target	ATIII
Immunogen	Human antithrombin 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.

BACKGROUND

Introduction

Antithrombin, also known as Antithrombin III (ATIII), is a member of the SERPIN family of proteinase inhibitors and the primary inhibitor of thrombin in plasma. It is produced in the liver and circulates in plasma at ~200 µg/ml (~3.5 µM). Antithrombin inhibits a broad spectrum of serine proteases including thrombin, activated forms of factor X, factor IX, factor XI, factor XII, as well as kallikrein, plasmin and urokinase. Enzyme inhibition by antithrombin occurs through proteolytic cleavage at Arg385-Ser386 and subsequent rapid formation of a stable, inactive 1:1 enzyme-antithrombin complex. Heparin has a profound accelerating effect on the inhibitory activity of antithrombin towards some enzymes. For example, the rate of inhibition of thrombin and activated factor X is increased 1000-fold in the presence of optimal concentrations of heparin, whereas heparin has relatively little effect on the inhibition rate of activated factor XI, activated factor XII and kallikrein. Antithrombin is a single chain molecule with a molecular weight of 59 kDa. Interaction with thrombin results in an SDS-stable thrombin-antithrombin complex of 96 kDa.

Keywords

SERPINC1;serpin peptidase inhibitor, clade C (antithrombin), member 1;AT3;AT3D;ATIII;THPH7;antithrombin-III;serine (or cysteine) proteinase inhibitor, clade C (antithrombin), member 1;

GENE INFORMATION

Entrez Gene ID

[462](#)

UniProt ID

[Q8TCE1](#)