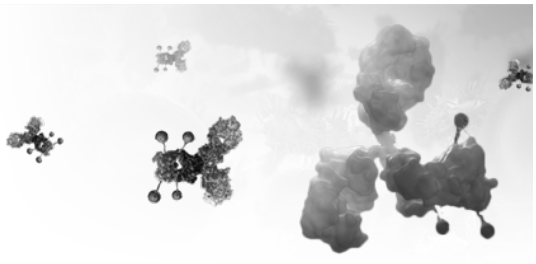

Sheep anti Human Thrombin polyclonal antibody [FITC] (CABT-L408)

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 thrombin (including prothrombin) as demonstrated by immunoelectrophoresis and ELISA.
Target	Thrombin
Immunogen	Thrombin prepared from purified human prothrombin, active site blocked with PPACK.
Isotype	IgG
Source/Host	Sheep
Species Reactivity	Human
Purification	Affinity purified
Conjugate	FITC
Applications	IEP, ELISA
Format	Liquid
Size	100 µg
Buffer	Phosphate-buffered saline containing 1 mg/mL bovine albumin and 0.1% sodium azide (w/v), pH 7.4.
Preservative	0.1% Sodium Azide
Storage	Store at 2°C to 8°C and protect from light.

BACKGROUND

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Introduction	Thrombin (EC3.4.21.5, α-thrombin) is the product of proteolytic activation of the zymogen prothrombin. Human thrombin is a two-chain serine protease with a mass of 37 kDa. The active site is located within the heavy chain. Thrombin has a high specificity for certain arginine bonds in protein substrates. The primary substrate is fibrinogen which thrombin converts to fibrin through the cleavage of four arginyl-glycyl peptide bonds. Thrombin is also an important activator of platelets, factor XIII, Protein C and TAFI (Plasma procarboxypeptidase B). In a positive feedback mechanism, thrombin increases the rate of its own production by activation of factors VIII and V. The rate of thrombin production is subsequently limited indirectly through the activation of Protein C by thrombin, which then inactivates the activated cofactors VIII and V. The binding of thrombin to thrombomodulin on the cell surface dramatically alters thrombin's specificity, increasing it's activity toward Protein C and TAFI, and decreasing it's activity toward fibrinogen and activating cofactors VIII and V. In plasma, thrombin activity is inhibited primarily by antithrombin and to a lesser extent heparin cofactor II. The rate of inhibition by both of these inhibitors is profoundly increased in the presence of optimal concentrations of heparin. Other physiological inhibitors of thrombin in the absence of heparin include α2 macroglobulin and α1 antitrypsin.
Keywords	F2;coagulation factor II;thrombin;PT;THPH1;RPRGL2;prothrombin;serine protease;prothrombin B-chain;prepro-coagulation factor II

GENE INFORMATION

Entrez Gene ID	2147
UniProt ID	P00734

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