



Rabbit anti Human Factor X polyclonal antibody [HRP] (CABT-L452)

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 Factor X as demonstrated by immunoelectrophoresis and ELISA.
Target	Factor X
Immunogen	Human Factor X purified from plasma.
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Conjugate	HRP
Applications	IEP, ELISA
Format	Liquid
Size	200 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

Factor X (F.X, Stuart Factor) is a vitamin K-dependent glycoprotein produced in the liver. The concentration of F.X in plasma is ~10 µg/ml (~170 nM). Factor X is expressed as a two-chain molecule with a molecular weight of 59 kDa. The light chain (17 kDa) of F.X contains a calcium-binding domain consisting of one hydroxyaspartic acid and 11 γ-carboxyglutamic acid (gla) residues. These residues allow F.X to bind to membranes that contain acidic phospholipids in a calcium dependent manner. This is followed by two EGF-like domains. The heavy chain of F.X (42 kDa) consists of the catalytic domain, carbohydrate and the activation peptide. Activation of F.X to the active enzyme (F.Xa) results from cleavage at residue Arg52 in the heavy chain of F.X by a complex of F.IXa, cofactor VIIIa, calcium and negatively charged phospholipid surface (the tenase complex), or by the F.VIIa-tissue factor complex. Both activation pathways result in the release of the activation peptide from the N-terminal of the heavy chain. The F.Xa generated is a serine protease responsible for the activation of prothrombin to thrombin in the presence of a phospholipid membrane, calcium and cofactor Va. The activity of F.Xa in plasma is inhibited by antithrombin (ATIII), α1 Antitrypsin, α2 macroglobulin and tissue factor pathway inhibitor (TFPI). The inhibitory activity of ATIII is stimulated approximately 1000-fold by heparin.

Keywords

F10;coagulation factor X;FX;FXA;factor Xa;prothrombinase;Stuart-Prower factor;

GENE INFORMATION

Entrez Gene ID

[2159](#)

UniProt ID

[P00742](#)