



Sheep anti Human Prekallikrein polyclonal antibody [HRP] (CABT-L461)

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 prekallikrein as demonstrated by immunoelectrophoresis and ELISA.
Target	Prekallikrein
Immunogen	Human active site-blocked kallikrein prepared 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

Prekallikrein (PK), previously known as Fletcher Factor, is a single chain glycoprotein produced in the liver. The plasma concentration of PK is 50 µg/ml (550 nM), approximately 75% of which circulates in complex with high molecular weight kininogen (HK) and the remainder as free PK. Plasma PK is heterogeneous in both mass and charge due to variable degrees of glycosylation. Approximately 90% of plasma PK has an apparent molecular weight of 88 kDa as determined by SDS-PAGE and the remaining 10% has an apparent mass of 85 kDa. The catalytic site resides in the light chain. The heavy chain of PK contains four apple-domain structures similar to those found in F.XI and these are required for binding of PK to HK. PK is the zymogen form of the enzyme kallikrein, which is involved in the proteolysis of kininogens with subsequent release of bradykinin, a potent vasodilator. PK participates in the contact phase of coagulation as a substrate for surface-bound activated factor XII (F.XIIa) in the presence of the cofactor HK. As PK and factor XI (F.XI) both circulate in complex with HK, both are localized to activating surfaces through their respective binding to HK. Limited proteolysis of PK by F.XIIa generates kallikrein, a two-chain serine protease that initiates the reciprocal activation of PK and F.XI. Kallikrein activity in plasma is regulated predominantly by C1-Inhibitor and α2 macroglobulin, with relatively minor contributions by Protein C Inhibitor, α2 Antiplasmin, and antithrombin.

Keywords

Fletcher factor;Glandular kallikrein;kallikrein 1 related peptidase b1;Kallikrein B plasma;Kallikrein B plasma (Fletcher factor) 1;Kallikrein B, plasma
1;Kininogenin;KLK3;Klk1;nerve growth factor gamma;Plasma;PK kallikrein;Plasma kallikrein

GENE INFORMATION

UniProt ID

[P03952](#)