



# Sheep anti Human Kininogen polyclonal antibody [HRP] (CABT-L463)

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

## PRODUCT INFORMATION

<b>Specificity</b>	Prior to conjugation, this antibody was specific for kininogen as demonstrated by immunoelectrophoresis and ELISA.
<b>Target</b>	Kininogen
<b>Immunogen</b>	High molecular weight kininogen from human plasma.
<b>Isotype</b>	IgG
<b>Source/Host</b>	Sheep
<b>Species Reactivity</b>	Human
<b>Purification</b>	Affinity purified
<b>Conjugate</b>	HRP
<b>Applications</b>	IEP, ELISA
<b>Format</b>	Liquid
<b>Size</b>	100 µg
<b>Buffer</b>	A buffered stabilizer solution containing 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. Avoid exposure to sodium azide as this is an inhibitor of peroxidase activity.

# BACKGROUND

## Introduction

Kininogens are multi-function proteins that are involved in the processes of coagulation, anticoagulation, fibrinolysis, inflammation and cell adhesion. Kininogens are produced in the liver but have also been found in platelets, granulocytes, renal tubular cells and skin. Two forms of kininogen are identified in plasma, both of which are the result of differential splicing of a single gene. High molecular weight kininogen (HK), previously known as Fitzgerald Factor, is a single chain glycoprotein of 120 kDa with a plasma concentration of 80 µg/mL (660 nM). Low molecular weight kininogen (LK), also known as  $\alpha$ -cysteine protease inhibitor, is a single chain glycoprotein of 68 kDa with a plasma concentration of 160 µg/mL (2.35 µM). HK and LK share a common heavy chain and bradykinin domain, but have unique light chains. It is the light chain of HK that is responsible for the coagulant cofactor activity by binding to anionic surfaces and for the ability to bind the zymogens prekallikrein (PK) and factor XI (F.XI). HK is cleaved by kallikrein in several sequential steps that result in the release of a potent vasodilator bradykinin and the conversion to a two-chain form of HK with increased cofactor activity. In plasma, most of the PK and F.XI circulate in complex with HK. Activation of PK by F.XIIa generates kallikrein, which initiates reciprocal activation of PK and F.XI. The presence of HK also serves to protect kallikrein and activated F.XI from protease inhibitors such as C1-Inhibitor, but regulation of the system may be accomplished through proteolytic inactivation of the HK cofactor activity by these enzymes.

## Keywords

KNG1;kininogen 1;BK;BDK;KNG;kininogen-1;HMWK;bradykinin;fitzgerald factor;high molecular weight kininogen;alpha-2-thiol proteinase inhibitor;williams-Fitzgerald-Flaujeac factor;

# GENE INFORMATION

## Entrez Gene ID

[3827](#)

## UniProt ID

[P01042](#)