***REPRESENTATIVE DATA SHEET****

# Sheep anti-human Kininogen (KN)

Whole IgG from antiserum
10 mg

**Product #:** SAKN-IG
**Lot #:** XXXX
**Expiry date:** XXXX

Store at –10 to -20°C

For Research Use Only.
Not for use in diagnostic procedures.

## Description of Kininogen (KN)

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 α-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 (FXI). 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 FXI circulate in complex with HK. Activation of PK by FXIIa generates kallikrein, which initiates reciprocal activation of PK and FXI. The presence of HK also serves to protect kallikrein and activated FXI 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.[1-2]

## REFERENCES and REVIEWS


**1.** Coleman RW, Schmaier AH; Contact System: A Vascular Biology Modulator With Anticoagulant, Profibrinolytic, Antiadhesive and Proinflammatory Attributes. Blood 90, pp 3819-3843, 1997.

**2**. DeLa Cadena R, Watchtfogel YT, Colman RW, in Hemostasis and Thrombosis, 3rd Edition, eds. RW Colman, J Hirsh, VJ Marder and EW Salzman, pp. 219-240, J.B. Lippincott Co., Philadelphia, 1994.


## Product Specifications

**Description:**
Vial containing XXXX ml of whole IgG representing approximately 1 ml of antiserum. Total protein is 10 mg.

**Format:**
Whole IgG, clear liquid.

**Host Animal:**
Sheep

**Immunogen:**
High molecular weight kininogen from human plasma.

**Concentration:**
IgG concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ($E^{1\%}_{280}$) of 13.4.

**Buffer:**
10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol.

**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.

**Specificity:**
This antibody is specific for kininogen as demonstrated by immunoelectrophoresis and ELISA.

**Applications:**
Suitable as a source of antibodies to human kininogen.

**Neutralizing activity:**
Not determined

**Species Cross Reactivity:** (immunodiffusion vs. citrated plasma)

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|---|---|---|---|---|---|
| Human: | XXXX | Mouse: | XXXX | Rat: | XXXX |
| Rabbit: | XXXX | Pig: | XXXX | Dog: | XXXX |