SANTA CRUZ BIOTECHNOLOGY, INC.

Kininogen HC (H-70): sc-25799

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Kininogen is a 644 amino acid precursor protein that is expressed by the KNG1 gene and is secreted into blood plasma. Due to alternative splicing events, several Kininogen protein derivatives exist, including Kininogen LC (light chain) and Kininogen HC (heavy chain), both of which are produced from the Kininogen precursor and exhibit different functions throughout the cell. Kininogen HC plays an important role in blood coagulation by helping to ensure that prekallikrein and Factor XI (both of which are involved in blood coagulation) are properly situated for interaction with Factor XII. Additionally, Kininogen HC releases a smaller, active protein known as bradykinin, which plays a role in smooth muscle contraction, induction of hypotension, regulation of blood glucose levels, stimulation of nociceptors and overall mediation of inflammatory responses throughout the cell. In contrast to Kininogen HC, which is involved in blood clotting, Kininogen LC is primarily associated with inhibition of thrombocyte aggregation and also functions as a strong inhibitor of cysteine proteinases.

CHROMOSOMAL LOCATION

Genetic locus: KNG1 (human) mapping to 3q27.3; Kng1 (mouse) mapping to 16 B1.

SOURCE

Kininogen HC (H-70) is a rabbit polyclonal antibody raised against amino acids 261-330 of Kininogen HC of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Kininogen HC (H-70) is recommended for detection of full length Kininogen precursor and Kininogen heavy chain of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Kininogen HC (H-70) is also recommended for detection of full length Kininogen precursor and Kininogen heavy chain in additional species, including equine.

Suitable for use as control antibody for Kininogen siRNA (h): sc-40723, Kininogen siRNA (m): sc-39326, Kininogen shRNA Plasmid (h): sc-40723-SH, Kininogen shRNA Plasmid (m): sc-39326-SH, Kininogen shRNA (h) Lentiviral Particles: sc-40723-V and Kininogen shRNA (m) Lentiviral Particles: sc-39326-V.

Molecular Weight of Kininogen HC: 64 kDa.

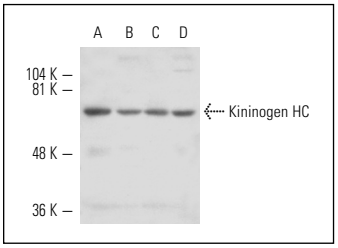
Molecular Weight of Kininogen LC: 53 kDa.

Positive Controls: Mouse kidney extract: sc-2255, mouse liver extract: sc-2256 or rat liver extract: sc-2395.

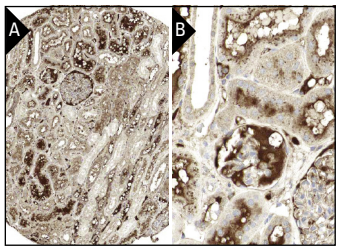
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Kininogen HC (H-70): sc-25799. Western blot analysis of Kininogen HC expression in mouse kidney (**A**), mouse liver (**B**), rat kidney (**C**) and rat liver (**D**) tissue extracts.



Kininogen HC (H-70): sc-25799. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubuli at low (**A**) and high (**B**) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.