

Kininogen HC (H-5): sc-166631

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.

REFERENCES

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4. Kitamura, N., et al. 1985. Structural organization of the human kininogen gene and a model for its evolution. *J. Biol. Chem.* 260: 8610-8617.
5. Cheung, P.P., et al. 1992. Chromosomal mapping of human kininogen gene (KNG) to 3q26→qter. *Cytogenet. Cell Genet.* 59: 24-26.
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CHROMOSOMAL LOCATION

Genetic locus: KNG1 (human) mapping to 3q27.3.

SOURCE

Kininogen HC (H-5) is a mouse monoclonal antibody raised against amino acids 261-330 of Kininogen HC of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Kininogen HC (H-5) is recommended for detection of full length Kininogen precursor and Kininogen heavy chain of human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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

Molecular Weight of Kininogen HC: 64 kDa.

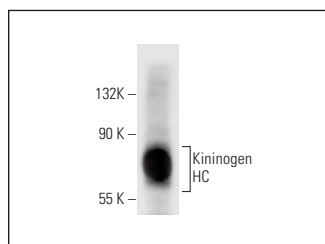
Molecular Weight of Kininogen LC: 53 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224 or Hep G2 cell lysate: sc-2227.

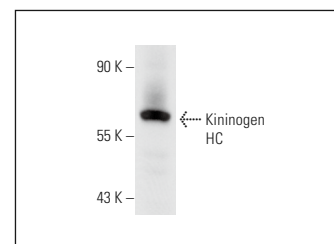
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Kininogen HC (H-5): sc-166631. Western blot analysis of Kininogen HC expression in Hep G2 whole cell lysate.



Kininogen HC (H-5): sc-166631. Western blot analysis of Kininogen HC expression in Caki-1 whole cell lysate.

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 for detailed protocols and support products.