

High Molecular Weight Kininogen Light Chain Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 20001 (clone C11C1)

Format: 200ug Protein G-purified antibody in PBS, pH 7.4.

BACKGROUND

High molecular weight kininogen (HMWK) is a circulating plasma protein which participates in the initiation of blood coagulation, and in the generation of the vasodilator bradykinin via the Kallikrein-kinin system. HMWK is inactive until it either adheres to binding proteins beneath an endothelium disrupted by injury, thereby initiating coagulation, or it binds to intact endothelial cells or platelets for functions other than coagulation. HMWK is an alpha-globulin with six functional domains. It circulates as a single-chain 626 amino acid polypeptide. The heavy chain contains domains 1, 2, and 3; the light chain, domains 5 and 6. Domain 4 links the heavy and light chains.

SPECIFICATION SUMMARY

Antigen: Purified human high molecular weight kininogen.

Host Species: Mouse

Antibody Class: IgG1

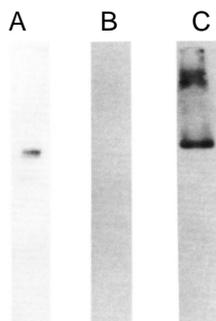
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SPECIFICITY

This antibody recognizes an epitope on the unique 46kDa light chain of human HMWK. The epitope maps to domain 5 of human HMWK. It can completely neutralize the coagulant activity of human HMWK.

APPLICATIONS

This antibody may be used in ELISA and Western blots to detect human HMWK light chain. It may also be used in coagulation assays. Enduser should determine optimal antibody concentrations for their applications.



Immunoblot with #20001 on (A) normal human plasma, (B) HMWK-deficient plasma, and (C) purified HMWK (see reference #1 below).

DILUTION INSTRUCTIONS

Dilute in PBS or medium that is identical to that used in the assay system.

STORAGE AND STABILITY

This antibody is stable for at least one (1) year at -20°C. Avoid repeated freezing and thawing.

For in vitro investigational use only. Not intended for therapeutic or diagnostic procedures.

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PRODUCT REFERENCES

1. Schmaier et al. (1987) *Determination of the bifunctional properties of high molecular weight kininogen by studies with monoclonal antibodies directed to each of its chains.* Journal of Biological Chemistry 262: 1405-1411.
2. Espinola et al. (2004) *A monoclonal antibody to high-molecular weight kininogen is therapeutic in a rodent model of reactive arthritis.* American Journal of Pathology 165: 969-976.
3. Keith et al. (2005) *A monoclonal antibody against kininogen reduces inflammation in the HLA-B27 transgenic rat.* Arthritis Research and Therapy 7: R769-R776.
4. Khan et al. (2010) *Inhibition of metastasis of syngeneic murine melanoma in vivo and vasculogenesis in vitro by monoclonal antibody C11C1 targeted to domain 5 of high molecular weight kininogen.* Cancer Immunology and Immunotherapy 59: 1885-1893.