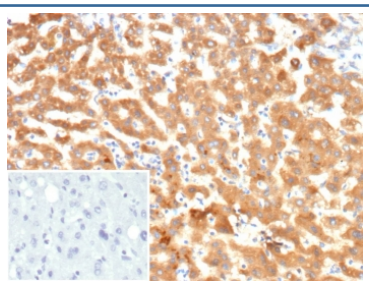
KNG1 Antibody KNG1/7422 / Kininogen Monoclonal Antibody [clone KNG1/7422] (V5752)

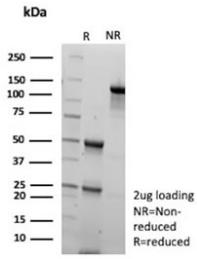
Catalog No.	Formulation	Size
V5752-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5752-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5752SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KNG1/7422
Purity	Protein G affinity
UniProt	P01042
Localization	Extracellular, Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml
Limitations	This KNG1 Antibody KNG1/7422 / Kininogen Monoclonal Antibody is available for research use only.



KNG1 Antibody KNG1/7422 by IHC in Human Liver. Immunohistochemistry of FFPE human liver tissue using KNG1 Antibody KNG1/7422. Strong brown DAB staining is observed throughout the hepatocyte cytoplasm, consistent with the liver's role as the primary site of kininogen synthesis. Nuclei are counterstained blue with hematoxylin. The inset shows a negative control in which PBS replaced the primary antibody, demonstrating minimal background staining. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before antibody incubation.



KNG1 Antibody KNG1/7422 by SDS-PAGE. SDS-PAGE analysis of purified, BSA-free KNG1 Antibody KNG1/7422 under reducing (R) and non-reducing (NR) conditions, with 2 ug of antibody loaded per lane. Under non-reducing conditions, the intact IgG migrates at approximately 150 kDa. Under reducing conditions, the antibody separates into heavy and light chains migrating at approximately 50 kDa and 25 kDa, respectively. The observed banding pattern is consistent with the expected molecular structure of a mouse IgG1 antibody and supports the integrity and purity of the preparation.

Description

KNG1 Antibody KNG1/7422 recognizes kininogen 1, a plasma glycoprotein involved in blood coagulation, inflammatory signaling, and vascular homeostasis. Encoded by the KNG1 gene on chromosome 3, kininogen is synthesized primarily in the liver and secreted into circulation. Alternative splicing produces two major isoforms, high molecular weight kininogen (HMWK) and low molecular weight kininogen (LMWK), which share extensive N-terminal sequences but differ in their C-terminal domains. Both proteins serve as precursors of biologically active kinins and participate in pathways regulating vascular function.

High molecular weight kininogen is an essential component of the plasma contact activation system, where it facilitates interactions between prekallikrein, coagulation factor XI, and negatively charged surfaces. Activation of plasma kallikrein promotes cleavage of HMWK and release of bradykinin, a nine-amino-acid peptide that stimulates vasodilation, increases vascular permeability, and contributes to inflammatory responses. Low molecular weight kininogen also serves as a kinin precursor but lacks the specialized contact system binding regions found in HMWK. Both isoforms contain cystatin-like domains associated with protease regulation.

KNG1 has been extensively investigated in hereditary angioedema, thrombosis, vascular inflammation, and other disorders involving abnormal kallikrein-kinin signaling. Excessive bradykinin generation contributes to increased vascular permeability and tissue swelling in certain forms of hereditary angioedema. Experimental studies have also examined kininogen processing during endothelial dysfunction, ischemia-reperfusion injury, and inflammatory responses. The relationship between coagulation and innate immunity makes KNG1 an important subject in research examining interactions between plasma proteases and inflammatory mediators.

Beyond vascular disorders, altered kininogen abundance and proteolytic fragments have been investigated as potential biomarkers in cancer and inflammatory disease. Because KNG1 is primarily a circulating protein, tissue immunoreactivity may reflect local synthesis, vascular distribution, or extracellular deposition. NSJ Bioreagents offers clone KNG1/7422, a monoclonal antibody raised against human KNG1 amino acids 1-200, a region outside the mature bradykinin sequence. An KNG1 Antibody provides a useful tool for investigating kininogen expression, protein distribution, and molecular pathways connecting coagulation, inflammation, and vascular biology.

For additional research into kininogen expression, bradykinin generation, and vascular inflammatory pathways, explore our KNG1 Antibody page.

Application Notes

Optimal dilution of the KNG1 Antibody KNG1/7422 / Kininogen Monoclonal Antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-200 from human Kininogen 1 protein was used as the immunogen for the KNG1 Antibody KNG1/7422.

Storage

Aliquot the KNG1 Antibody KNG1/7422 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Kininogen 1 antibody, Kininogen antibody, High Molecular Weight Kininogen antibody, Low Molecular Weight Kininogen antibody, HMWK antibody, LMWK antibody, Plasma Kininogen antibody, Bradykinin Precursor antibody

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