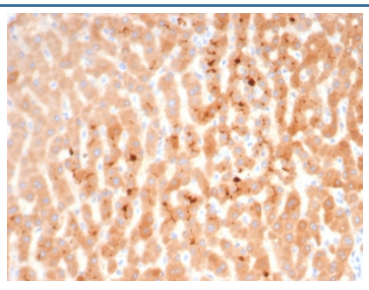
Kininogen 1 Antibody KNG1/7423 / KNG1 Monoclonal Antibody [clone KNG1/7423] (V5019)

Catalog No.	Formulation	Size
V5019-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5019-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5019SAF-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	KNG1/7423
Purity	Protein A/G affinity
UniProt	P01042
Localization	Extracellular, Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This Kininogen 1 Antibody KNG1/7423 / KNG1 Monoclonal Antibody is available for research use only.



Kininogen 1 Antibody KNG1/7423 by IHC in Human Liver. Immunohistochemistry of FFPE human liver tissue using Kininogen 1 Antibody KNG1/7423. Strong brown DAB staining is observed predominantly in the cytoplasm of hepatocytes, consistent with the liver's role as the primary site of KNG1 synthesis. The staining is distributed throughout the hepatic parenchyma, with some variation in intensity between individual cells. Nuclei are counterstained blue with hematoxylin. 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.

Description

Kininogen 1 Antibody KNG1/7423 recognizes KNG1, a circulating plasma glycoprotein involved in 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 generates 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 for biologically active kinins and contribute to pathways regulating vascular responses.

High molecular weight kininogen functions as an important cofactor in the plasma contact activation system, supporting interactions between prekallikrein, coagulation factor XI, and negatively charged surfaces. During contact activation, plasma kallikrein cleaves HMWK to release bradykinin, a nine-amino-acid peptide that promotes vasodilation, increases vascular permeability, and contributes to inflammatory signaling. Low molecular weight kininogen also serves as a kinin precursor but lacks the specialized contact system binding regions found in HMWK. These differences influence the biological functions of the two isoforms within coagulation and inflammatory pathways.

KNG1 has been investigated in hereditary angioedema, thrombosis, vascular inflammation, and other disorders involving abnormal regulation of the kallikrein-kinin system. Excessive bradykinin generation contributes to increased vascular permeability and tissue swelling in certain forms of hereditary angioedema. Experimental studies have also examined kininogen processing in ischemia-reperfusion injury, endothelial dysfunction, and inflammatory responses. The interaction between coagulation and inflammation makes KNG1 an important subject in studies of vascular disease and innate immune regulation.

Beyond vascular disorders, changes in kininogen abundance and proteolytic processing have been explored as potential biomarkers in cancer and inflammatory disease. Because KNG1 is predominantly a secreted plasma protein, its detection in tissues may reflect local synthesis, circulating protein, or extracellular deposition. NSJ Bioreagents offers clone KNG1/7423, a monoclonal antibody raised against a portion human KNG1 amino acids 1-200, a region distinct from the mature bradykinin peptide. An Kininogen 1 Antibody provides a useful tool for investigating KNG1 expression, tissue distribution, and the 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 Kininogen 1 Antibody KNG1/7423 / KNG1 Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 1-200) from the human protein was used as the immunogen for the Kininogen 1 Antibody KNG1/7423.

Storage

Aliquot the Kininogen 1 Antibody KNG1/7423 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

KNG1 antibody, Kininogen antibody, Plasma Kininogen antibody, High Molecular Weight Kininogen antibody, Low Molecular Weight Kininogen antibody, HMWK antibody, LMWK antibody, Bradykinin Precursor antibody

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