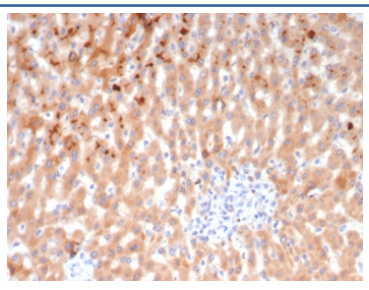
KNG1 Antibody KNG1/7424 / Kininogen 1 Monoclonal Antibody [clone KNG1/7424] (V5020)

Catalog No.	Formulation	Size
V5020-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5020-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5020SAF-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
Clone Name	KNG1/7424
Purity	Protein A/G affinity
UniProt	P01042
Localization	Extracellular, Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This KNG1 Antibody KNG1/7424 / Kininogen 1 Monoclonal Antibody is available for research use only.



KNG1 Antibody KNG1/7424 by IHC in Human Liver. Immunohistochemistry of FFPE human liver tissue using KNG1 Antibody KNG1/7424. Moderate to strong brown DAB staining is observed predominantly in the cytoplasm of hepatocytes, with variable staining intensity throughout the hepatic parenchyma. The staining pattern is consistent with the liver's role as the primary site of kininogen 1 synthesis. 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

KNG1 Antibody KNG1/7424 recognizes kininogen 1, a plasma glycoprotein involved in blood coagulation, inflammatory signaling, and vascular regulation. 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 for biologically active kinins and participate in pathways regulating vascular function and inflammatory responses.

High molecular weight kininogen is an important 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 signaling. Low molecular weight kininogen also serves as a kinin precursor but lacks the specialized contact system binding regions present in HMWK. These functional differences influence the contributions of each isoform to coagulation and inflammatory pathways.

KNG1 has been investigated in hereditary angioedema, thrombosis, vascular inflammation, and other conditions 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 during endothelial dysfunction, ischemia-reperfusion injury, and inflammatory responses. The relationship between plasma contact activation and innate immunity makes KNG1 an important subject in studies of vascular disease and inflammatory regulation.

Beyond vascular disorders, altered kininogen abundance and proteolytic fragments have been investigated as potential biomarkers in cancer and inflammatory disease. Because KNG1 is predominantly a circulating plasma protein, tissue immunoreactivity may reflect local synthesis, vascular distribution, or extracellular deposition. NSJ Bioreagents offers clone KNG1/7424, a monoclonal antibody raised against a portion of human KNG1 within amino acids 1-200, outside the mature bradykinin sequence. An KNG1 Antibody provides a useful tool for investigating kininogen expression, tissue 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 KNG1/7424 / Kininogen 1 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 KNG1 Antibody KNG1/7424.

Storage

Aliquot the KNG1 Antibody KNG1/7424 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Kininogen 1 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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