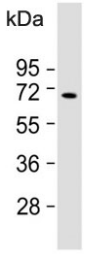
KNG1 Antibody / Kininogen 1 Polyclonal Antibody (F54608)

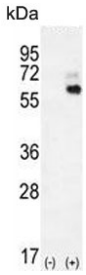
Catalog No.	Formulation	Size
F54608-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54608-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

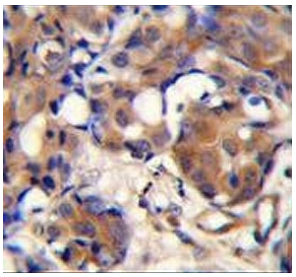
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity purified
UniProt	P01042
Localization	Cytoplasmic
Applications	Western blot: 1:500-1:2000 Flow cytometry: 1:25 (1x10e6 cells) Immunohistochemistry (FFPE): 1:25
Limitations	This KNG1 Antibody / Kininogen 1 Polyclonal Antibody is available for research use only.



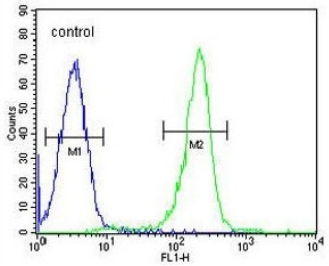
NG1 Antibody by WB in Human Ramos Cells. Western blot analysis of human Ramos cell lysate using KNG1 Antibody. A distinct immunoreactive band is observed at approximately 70 kDa, consistent with the predicted molecular weight of approximately 72 kDa listed for kininogen 1. KNG1 encodes high molecular weight and low molecular weight kininogen, two plasma glycoproteins involved in inflammatory signaling and the kallikrein-kinin system. The observed band supports detection of a KNG1-related protein in human Ramos cells. Kininogen 1 Polyclonal Antibody recognizes a region shared by the major KNG1 isoforms, although the identity of the detected isoform has not been independently established.



KNG1 Antibody by WB in Transfected Human 293 Cells. Western blot analysis of non-transfected and KNG1-transfected human 293 cell lysates using KNG1 Antibody. Lane 1: non-transfected cells; lane 2: KNG1-transfected cells. A prominent immunoreactive band is detected at approximately 60 kDa in the transfected sample, while the corresponding signal is absent or substantially weaker in the non-transfected control. The observed molecular weight is below the approximately 72 kDa value listed on the datasheet. Differences in KNG1 processing, glycosylation, or construct characteristics could influence electrophoretic migration, although the specific explanation has not been established. The increased signal following transfection supports recognition of KNG1.



KNG1 Antibody by IHC in Human Breast Carcinoma. Immunohistochemistry of FFPE human breast carcinoma tissue using KNG1 Antibody. Brown DAB staining is observed predominantly in the cytoplasm of malignant epithelial cells, with variable staining intensity throughout the tissue. Nuclei are counterstained blue with hematoxylin. Heat-induced epitope retrieval was performed by steaming sections in pH 6 citrate buffer for 20 minutes, followed by cooling before antibody incubation. Because kininogen 1 is primarily a secreted plasma protein, tissue immunoreactivity may reflect local protein expression or the presence of circulating or deposited kininogen.



KNG1 Antibody by FACS in Human Ramos Cells. Flow cytometry analysis of human Ramos cells using KNG1 Antibody. The green histogram represents cells stained with KNG1 Antibody, while the blue histogram represents the isotype control. A pronounced rightward fluorescence shift is observed in the antibody-stained population relative to the control, demonstrating increased antibody-associated fluorescence. The distinct separation between the two populations supports detection of KNG1-associated immunoreactivity in Ramos cells. Because kininogen 1 is primarily a secreted protein, the fluorescence shift does not independently establish endogenous cell surface expression.

Description

KNG1 Antibody recognizes kininogen 1, a plasma glycoprotein involved in blood coagulation, inflammatory signaling, and vascular permeability. Encoded by the KNG1 gene on chromosome 3, kininogen serves as the precursor of biologically active kinins, including bradykinin. Alternative splicing produces two major isoforms, high molecular weight kininogen (HMWK) and low molecular weight kininogen (LMWK), which share an extensive N-terminal region but differ in their C-terminal domains. Both proteins are synthesized primarily in the liver and secreted into circulation.

High molecular weight kininogen is an essential component of the plasma contact activation system, where it interacts with prekallikrein and coagulation factor XI. 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. Kininogen 1 also contains cystatin-like domains involved in protease regulation. The protein's multiple functional regions connect coagulation pathways with inflammatory signaling and vascular homeostasis.

KNG1 has been investigated in hereditary angioedema, thromboinflammatory disorders, and other conditions involving abnormal regulation of the kallikrein-kinin system. Excessive bradykinin generation can contribute to increased vascular permeability and tissue swelling. Beyond vascular disorders, altered kininogen expression and proteolytic processing have been studied in several malignancies, including breast, colorectal, and liver cancers. Circulating kininogen and its cleavage products have attracted interest as potential disease biomarkers, although their clinical significance remains under investigation.

Because kininogen is predominantly a circulating plasma protein, its detection in tumor tissues may reflect local expression, vascular distribution, or deposition from the bloodstream. Interpretation of tissue staining therefore requires consideration of protein localization and experimental context. KNG1 undergoes glycosylation and proteolytic processing,

which can influence its apparent molecular weight in biochemical analyses. NSJ Bioreagents offers a rabbit polyclonal antibody raised against amino acids 138-166 of human kininogen 1, outside the mature bradykinin sequence. An KNG1 Antibody provides a useful tool for investigating kininogen expression, protein processing, coagulation pathways, and inflammatory responses.

Explore our selection of Signal Transduction Antibodies for investigating inflammatory signaling, vascular responses, and molecular pathways involved in cellular regulation.

Application Notes

The stated application concentrations are suggested starting points. Titration of the KNG1 Antibody / Kininogen 1 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 138-166 from the human protein was used as the immunogen for the KNG1 antibody.

Storage

Aliquot the KNG1 antibody 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

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