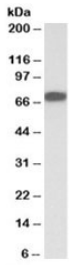
Kininogen 1 Polyclonal Antibody / KNG1 Peptide Antibody (R35131)

Catalog No.	Formulation	Size
R35131-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	3827
Applications	Western blot: 0.03-0.1ug/ml ELISA (peptide) LOD: 1:128000
Limitations	This Kininogen 1 Polyclonal Antibody / KNG1 Peptide Antibody is available for research use only.



Kininogen 1 Polyclonal Antibody by WB in Human Plasma. Western blot analysis of albumin-depleted human plasma using Kininogen 1 Polyclonal Antibody at 0.03 ug/ml. A distinct immunoreactive band is observed at approximately 72 kDa, consistent with the molecular weight reported for the detected KNG1 protein species. Kininogen 1 is a circulating plasma glycoprotein involved in blood coagulation, bradykinin generation, and inflammatory signaling. The antibody was raised against the peptide PRDIPTNSPELE, which is distinct from the mature bradykinin sequence. The observed band supports detection of a kininogen-related protein in human plasma.

Description

Kininogen 1 Polyclonal Antibody recognizes KNG1, a plasma glycoprotein involved in coagulation, inflammatory signaling, and vascular homeostasis. The KNG1 gene encodes two major alternatively spliced 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. Kininogens are synthesized primarily in the liver and secreted into circulation, where they participate in proteolytic pathways regulating vascular function and inflammatory responses. Both isoforms contain

cystatin-like domains associated with protease regulation and contribute to the generation of biologically active kinins.

High molecular weight kininogen is an important component of the plasma contact activation system, functioning as a cofactor for 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 signaling. Low molecular weight kininogen can also serve as a kinin precursor but lacks the specialized contact system binding regions present in HMWK. These differences influence how the two isoforms participate in coagulation and inflammatory pathways.

KNG1 has been investigated in hereditary angioedema, vascular inflammation, thrombosis, and other conditions involving abnormal regulation of the kallikrein-kinin system. Excessive bradykinin production contributes to increased vascular permeability and tissue swelling in certain forms of hereditary angioedema. Studies have also examined kininogen processing during inflammatory responses, endothelial dysfunction, and ischemia-reperfusion injury. Changes in circulating kininogen abundance and proteolytic fragments have attracted interest as potential biomarkers of inflammatory and malignant diseases.

Because KNG1 undergoes glycosylation and proteolytic cleavage, different molecular forms may be detected in plasma and tissue samples. Antibodies raised against specific peptide regions can help investigate kininogen expression and processing, although recognition of individual isoforms depends on epitope accessibility and sequence conservation. NSJ Bioreagents offers a goat polyclonal antibody generated against the peptide PRDIPTNSPELE, which differs from the mature bradykinin sequence. A Kininogen 1 Polyclonal Antibody provides a useful tool for studying KNG1 expression, protein processing, and the relationship between coagulation and inflammation.

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 Polyclonal Antibody / KNG1 Peptide Antibody should be determined by the researcher.

Immunogen

Amino acids PRDIPTNSPELE were used as the immunogen for this Kininogen 1 Polyclonal Antibody.

Storage

Aliquot and store the Kininogen 1 Polyclonal Antibody at -20oC.

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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