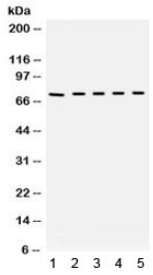
Kininogen 1 Antibody / Mouse KNG1 Polyclonal Antibody (R31794)

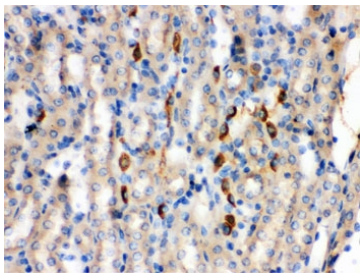
Catalog No.	Formulation	Size
R31794	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	O08677
Localization	Cytoplasmic
Applications	Western blot: 0.1-0.5ug/ml IHC (FFPE): 0.5-1ug/ml
Limitations	This Kininogen 1 Antibody / Mouse KNG1 Polyclonal Antibody is available for research use only.



Kininogen 1 Antibody by WB in Mouse Tissues. Western blot analysis of mouse tissue and cell lysates using Kininogen 1 Antibody. Lane 1: mouse lung; lane 2: mouse testis; lane 3: mouse liver; lane 4: mouse HEPA cells; lane 5: mouse NEURO cells. A distinct immunoreactive band is observed at approximately 72 kDa in all five samples, consistent with the expected molecular weight of kininogen 1. The relatively uniform band intensity demonstrates detectable KNG1 immunoreactivity across the tested samples. Mouse KNG1 is a plasma protein precursor involved in the kallikrein-kinin system, blood coagulation, and inflammatory signaling.



Kininogen 1 Antibody by IHC in Mouse Kidney. Immunohistochemistry of FFPE mouse kidney tissue using Kininogen 1 Antibody. Brown DAB staining is observed in renal tubular structures, with predominantly cytoplasmic immunoreactivity and variable staining intensity among individual cells. Nuclei are counterstained blue with hematoxylin. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer, pH 6, for 20 minutes, followed by cooling before antibody incubation. The staining demonstrates KNG1 immunoreactivity in mouse kidney tissue.

Description

Kininogen 1 Antibody recognizes KNG1, a plasma glycoprotein involved in coagulation, inflammation, and vascular regulation. The KNG1 gene encodes high molecular weight kininogen (HMWK) and low molecular weight kininogen (LMWK), two alternatively spliced proteins that share an extensive N-terminal region but differ in their C-terminal domains. Kininogens are synthesized predominantly in the liver and released into circulation, where they participate in proteolytic pathways regulating blood vessel function and inflammatory responses. Both isoforms contain cystatin-like domains, while HMWK has additional regions that support interactions with components of the plasma contact activation system.

High molecular weight kininogen functions as a cofactor for the assembly of prekallikrein and coagulation factor XI on negatively charged surfaces. During contact system 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 differs in its interactions with contact system proteins. These processes connect KNG1 activity with coagulation, endothelial function, and the regulation of inflammatory mediators.

Mouse models are widely used to investigate the kallikrein-kinin system and its involvement in vascular inflammation, thrombosis, and hereditary angioedema. Studies involving Kng1-deficient mice have helped clarify the contribution of kininogen to contact activation, bradykinin production, and inflammatory responses. KNG1 has also attracted attention in research examining ischemia-reperfusion injury, vascular permeability, and interactions between coagulation and innate immunity. Altered kininogen expression or proteolytic processing may influence disease-associated inflammatory pathways.

Because kininogen is a secreted plasma protein, its detection in tissues may reflect local synthesis, circulating protein, or deposition within the extracellular environment. Glycosylation and proteolytic cleavage can also influence the molecular weight of detected KNG1 species. NSJ Bioreagents offers a rabbit polyclonal antibody raised against a mouse KNG1 peptide corresponding to the sequence ECRGNLFMDINNKIANFSQSCTLYSGDDLVEAL. A Kininogen 1 Antibody provides a useful tool for investigating mouse kininogen expression, contact system activity, 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 Antibody / Mouse KNG1 Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids ECRGNLFMDINNKIANFSQSCTLYSGDDLVEAL of the mosue protein were used as the immunogen for the Kininogen 1 Antibody.

Storage

After reconstitution, the Kininogen 1 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

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

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