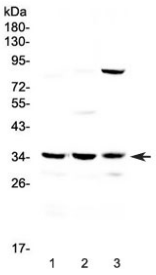
Bikunin Antibody / AMBP (RQ4663)

Catalog No.	Formulation	Size
RQ4663	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P02760
Localization	Secreted
Applications	Western Blot : 0.5-1ug/ml Direct ELISA : 0.1-0.5ug/ml (human recombinant protein)
Limitations	This Bikunin antibody is available for research use only.



Bikunin Antibody WB. Western blot testing of 1) rat liver, 2) mouse liver and 3) mouse NIH3T3 lysate with Bikunin antibody at 0.5ug/ml. Expected molecular weight: 16/35-45 kDa (unglycosylated/glycosylated Bikunin), ~39 kDa (uncleaved AMBP).

Description

Alpha-1-microglobulin-bikunin precursor is a secreted glycoprotein encoded by the AMBP gene that is processed into two biologically distinct proteins: Alpha-1-microglobulin and Bikunin. Bikunin Antibody recognizes the Bikunin portion of this precursor protein, which functions as a Kunitz-type serine protease inhibitor involved in extracellular matrix regulation and inflammatory signaling. Bikunin is generated through proteolytic cleavage of the AMBP precursor in hepatocytes and

subsequently secreted into circulation where it associates with other proteins to form complexes involved in protease inhibition and tissue protection.

Bikunin antibody, also referred to as AMBP antibody and Inter-alpha-trypsin inhibitor light chain antibody in the literature, detects a small extracellular protease inhibitor that plays an important role in regulating proteolytic activity in plasma and tissue environments. Bikunin contains a characteristic Kunitz-type protease inhibitor domain that allows it to inhibit several serine proteases. Through these interactions, Bikunin contributes to control of inflammatory protease activity and stabilization of extracellular matrix components during tissue injury or remodeling.

Bikunin is synthesized primarily in the liver as part of the Alpha-1-microglobulin-bikunin precursor and is released into the bloodstream following intracellular processing. Once secreted, Bikunin can associate with heavy chains to form inter-alpha-trypsin inhibitor complexes that circulate in plasma and participate in extracellular protease regulation. Because of this secretory pathway, Bikunin may be detected in hepatocytes responsible for precursor synthesis as well as in tissues exposed to circulating plasma proteins.

Alterations in Bikunin expression or processing have been examined in studies of inflammation, tumor progression, and extracellular matrix remodeling. Changes in Bikunin levels have been reported in several disease contexts where regulation of protease activity is disrupted, including cancer and inflammatory conditions. As a component of the AMBP precursor system, Bikunin provides insight into mechanisms linking protease inhibition, oxidative stress responses, and tissue homeostasis.

Bikunin Antibody supports research applications focused on detecting the Bikunin component of the AMBP precursor protein in tissues and biological samples. Cytoplasmic or extracellular staining patterns correspond with the synthesis and secretion pathways of this protease inhibitor, enabling studies of extracellular protease regulation, liver-derived plasma proteins, and inflammatory signaling pathways.

For highly specific detection of AMBP-associated plasma glycoprotein signaling pathways, see our AMBP Antibody / Plasma Glycoprotein Marker Antibody page featuring clone AMBP/4533 with IHC and HuProt(TM) microarray specificity validation data.

Application Notes

Optimal dilution of the Bikunin antibody should be determined by the researcher.

Immunogen

A recombinant human protein corresponding to amino acids A206-N352 was used as the immunogen for the Bikunin antibody.

Storage

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