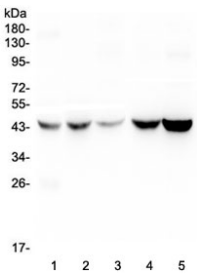
Alpha 1 Microglobulin Antibody / Protein HC Antibody (RQ4535)

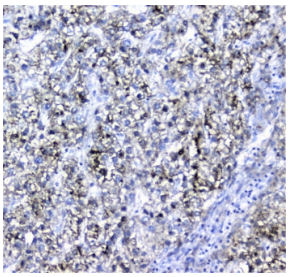
Catalog No.	Formulation	Size
RQ4535	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

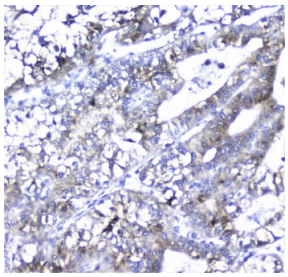
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P02760
Localization	Secreted
Applications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



Alpha 1 Microglobulin Antibody WB. Western blot analysis of human 1) placenta, 2) HEp-2, 3) HeLa, 4) A549, and 5) PANC-1 lysates using Alpha 1 Microglobulin Antibody detects bands migrating between approximately 39-43 kDa, consistent with uncleaved Alpha-1-microglobulin-bikunin precursor / AMBP and glycosylated AMBP-associated protein species. This Protein HC antibody highlights extracellular glycoprotein-associated signaling and secretory pathway biology across epithelial and tumor-derived cell types. Higher apparent molecular weights are consistent with known glycosylation of AMBP-derived proteins.



Alpha 1 Microglobulin Antibody Liver Cancer IHC. Immunohistochemistry analysis of FFPE human liver cancer tissue stained with Alpha 1 Microglobulin Antibody demonstrates granular cytoplasmic HRP-DAB brown staining within malignant epithelial cell populations, consistent with Alpha-1-microglobulin / AMBP-associated extracellular glycoprotein and secretory pathway expression. This Protein HC antibody highlights oxidative stress-associated signaling and plasma glycoprotein regulatory biology within hepatocellular tumor tissue. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



Alpha 1 Microglobulin Antibody Liver Carcinoma IHC. Immunohistochemistry analysis of FFPE human liver carcinoma tissue stained with Alpha 1 Microglobulin Antibody demonstrates diffuse cytoplasmic HRP-DAB brown staining in tumor epithelial cells with heterogeneous intensity across neoplastic glandular structures, consistent with Alpha-1-microglobulin / AMBP-associated secretory protein expression. This Protein HC antibody highlights extracellular glycoprotein-associated signaling and oxidative stress regulatory pathways in liver-derived tumor tissue. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.

Description

Alpha-1-microglobulin is a secreted glycoprotein derived from proteolytic processing of the alpha-1-microglobulin/bikunin precursor (AMBP) protein. Alpha-1-microglobulin circulates in plasma and extracellular fluids where it functions in heme scavenging, oxidative stress regulation, free radical detoxification, and tissue-protective signaling pathways. The protein is synthesized primarily in the liver and distributed broadly throughout plasma and extracellular tissue compartments. Alpha 1 Microglobulin Antibody is useful for investigations involving oxidative stress biology, plasma glycoprotein signaling, inflammatory regulation, and extracellular protective pathway regulation.

Alpha 1 microglobulin antibody, also referred to as AMBP antibody, Protein HC antibody, and Alpha-1-microglobulin/bikunin precursor antibody in the literature, recognizes a secreted glycoprotein encoded through processing of the AMBP precursor on chromosome 9q32. Alpha-1-microglobulin is detected in plasma, liver, kidney, epithelial tissues, and extracellular compartments where it participates in scavenging of oxidative metabolites, heme-binding pathways, inflammatory signaling regulation, and extracellular homeostasis-associated signaling networks. Altered alpha-1-microglobulin expression has been associated with renal dysfunction, inflammatory disease, oxidative tissue injury, and extracellular stress-associated signaling abnormalities.

Alpha 1 Microglobulin Antibody / Protein HC Antibody is uniquely positioned for studies involving extracellular oxidative stress regulation and circulating glycoprotein-associated signaling pathways. This rabbit polyclonal antibody supports detection of alpha-1-microglobulin-associated extracellular signaling biology in tissue and protein detection systems. The polyclonal nature of the antibody may additionally support recognition of multiple AMBP-associated epitopes involved in extracellular protective signaling and tissue homeostasis-associated regulation.

Alpha-1-microglobulin contributes directly to extracellular protective signaling through scavenging of free radicals and oxidative metabolites capable of damaging cellular and extracellular tissue structures. The protein additionally participates in inflammatory regulation and extracellular tissue homeostasis-associated signaling pathways. Because alpha-1-microglobulin circulates broadly and accumulates in extracellular tissue compartments, it serves as an important marker for investigations involving plasma-derived protective proteins and oxidative stress-associated biology.

In tissue-based and protein detection systems, alpha-1-microglobulin expression commonly demonstrates cytoplasmic and extracellular-associated localization patterns consistent with secreted plasma glycoprotein biology. Liver, kidney, and epithelial-associated tissues may demonstrate prominent alpha-1-microglobulin-associated staining reflecting active secretory and extracellular protective signaling pathways. Alpha-1-microglobulin-associated signaling networks are important for maintenance of tissue homeostasis and regulation of oxidative stress-associated extracellular environments.

This Alpha 1 Microglobulin Antibody supports research involving oxidative stress-associated signaling, plasma glycoprotein biology, extracellular protective pathways, inflammatory regulation, liver-associated secretory biology, extracellular homeostasis regulation, and tissue injury-associated signaling pathways. The antibody may be incorporated into western blot and tissue-based investigations examining extracellular glycoprotein-associated signaling in normal and diseased tissues.

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 Alpha 1 Microglobulin Antibody / Protein HC Antibody should be determined by the researcher.

Immunogen

Amino acids G20-V203 from the human protein were used as the immunogen for the Alpha 1 microglobulin antibody.

Storage

After reconstitution, the Alpha 1 microglobulin 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

Alpha 1 microglobulin antibody, AMBP antibody, Protein HC antibody, Alpha-1-microglobulin/bikunin precursor antibody, Bikunin precursor antibody