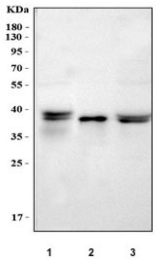
AMBP Antibody for WB / Alpha 1 Microglobulin (RQ8292)

Catalog No.	Formulation	Size
RQ8292	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	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
UniProt	Q07456
Applications	Western blot: 0.5-1ug/ml ELISA: 0.1-0.5ug/ml
Limitations	This AMBP antibody is available for research use only.



AMBP Antibody for WB. Western blot testing of Lane 1: rat liver lysate, Lane 2: mouse kidney lysate, Lane 3: mouse liver lysate with AMBP antibody. Bands are detected at approximately 26-28 kDa, consistent with the predicted molecular weight of Alpha-1-microglobulin derived from the AMBP precursor protein. A higher band near approximately 39 kDa may correspond to the uncleaved Alpha-1-microglobulin-bikunin precursor (AMBP). As Alpha-1-microglobulin is a glycosylated secreted protein, additional bands at slightly higher apparent molecular weights may be observed due to glycosylation.

Description

Alpha-1-microglobulin is a small secreted glycoprotein encoded by the AMBP gene and produced as part of the Alpha-1-microglobulin/bikunin precursor protein. AMBP Antibody for WB is designed for western blot detection of this plasma protein in cell lysates and biological samples. Following translation of the AMBP precursor in hepatocytes, proteolytic processing generates the mature Alpha-1-microglobulin protein, which is secreted into circulation where it participates in oxidative stress defense and heme binding.

Western blot analysis is commonly used to evaluate Alpha-1-microglobulin expression and processing because the protein is generated through cleavage of the larger AMBP precursor. In immunoblot experiments, Alpha-1-microglobulin is typically detected as a band near its predicted molecular weight of approximately 26 kDa under reducing SDS-PAGE conditions. In some lysates, additional bands may appear corresponding to precursor or processing intermediates derived from the AMBP protein. These band patterns can be useful when evaluating precursor cleavage or secretion pathways in hepatocyte-derived cell systems.

Because Alpha-1-microglobulin is synthesized primarily in the liver and secreted into extracellular fluids, western blot experiments often examine conditioned media, plasma-derived fractions, or tissue lysates from liver samples. Immunoblot detection can reveal relative changes in Alpha-1-microglobulin abundance in response to oxidative stress, inflammatory signaling, or metabolic regulation. In cell culture systems, the protein may be present at lower levels in intracellular lysates due to rapid secretion following synthesis.

Western blot detection of Alpha-1-microglobulin is also used in studies investigating renal biology. After circulating Alpha-1-microglobulin is filtered through the glomerulus, it is normally reabsorbed by proximal tubular epithelial cells. Immunoblot analysis of kidney lysates or urinary proteins can therefore help evaluate tubular protein handling and kidney injury models that disrupt this reabsorption pathway.

AMBP Antibody for WB / Alpha 1 Microglobulin supports immunoblot-based detection of the Alpha-1-microglobulin protein and related precursor forms derived from the AMBP gene product. This antibody enables researchers to confirm protein size, monitor processing of the AMBP precursor, and compare Alpha-1-microglobulin expression levels across tissues, cell lysates, or experimental conditions involving oxidative stress and metabolic regulation.

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 AMBP antibody for WB should be determined by the researcher.

Immunogen

An E.coli-derived mouse recombinant protein (A205-S349) was used as the immunogen for the AMBP antibody.

Storage

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

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