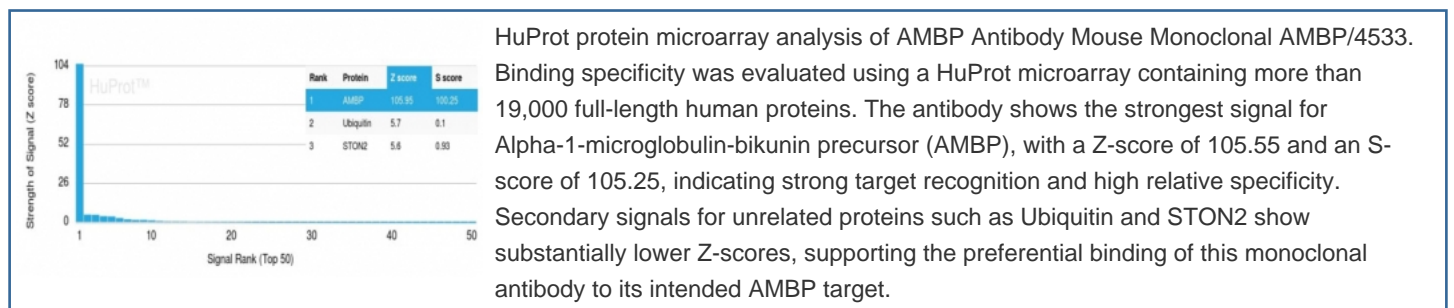


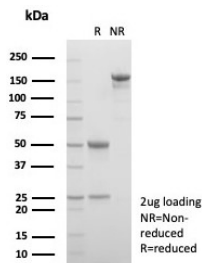
AMBP Antibody Mouse Monoclonal AMBP/4533 / Bikunin [clone AMBP/4533] (V5300)

Catalog No.	Formulation	Size
V5300-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5300-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5300SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

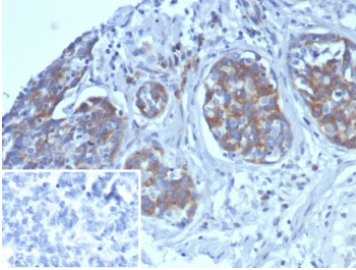
Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	AMBP/4533
Purity	Protein A/G affinity
UniProt	P02760
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This AMBP antibody is available for research use only.





SDS-PAGE analysis of purified, BSA-free AMBP antibody (clone AMBP/4533) as confirmation of integrity and purity.



Immunohistochemistry of AMBP Antibody Mouse Monoclonal AMBP/4533 in human ovarian cancer tissue. Formalin-fixed, paraffin-embedded human ovarian carcinoma sections demonstrate cytoplasmic HRP-DAB brown staining in tumor epithelial cells consistent with Alpha-1-microglobulin-bikunin precursor (AMBP) expression. Surrounding stromal components show comparatively weaker staining. The inset panel shows PBS used in place of primary antibody as a negative control, demonstrating minimal background signal. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 20 min followed by cooling prior to antibody incubation.

Description

Alpha-1-microglobulin-bikunin precursor is a secreted glycoprotein encoded by the AMBP gene and serves as the precursor for two biologically distinct proteins, Alpha-1-microglobulin and Bikunin. AMBP Antibody Mouse Monoclonal AMBP/4533 recognizes the protein product of the AMBP gene, which is synthesized primarily in hepatocytes and subsequently processed through proteolytic cleavage to generate the mature Alpha-1-microglobulin and Bikunin proteins. These proteins perform different physiological functions related to oxidative stress protection and regulation of extracellular protease activity.

AMBP antibody, also referred to as Alpha-1-microglobulin antibody and Alpha-1-microglobulin-bikunin precursor antibody in the literature, detects a protein involved in maintaining extracellular homeostasis and protecting tissues from oxidative damage. Alpha-1-microglobulin functions as a heme-binding and radical-scavenging protein capable of neutralizing oxidized molecules, while Bikunin contains a Kunitz-type serine protease inhibitor domain that regulates proteolytic activity in plasma and extracellular environments. Together, these proteins contribute to tissue protection and regulation of inflammatory processes.

The AMBP precursor protein is synthesized in the liver and secreted into circulation where it undergoes processing into its mature components. Because of this secretory pathway, AMBP-related proteins can be detected in hepatocytes responsible for synthesis as well as in tissues that reabsorb circulating proteins. In the kidney, Alpha-1-microglobulin is filtered through the glomerulus and reabsorbed by proximal tubular epithelial cells, making AMBP-derived proteins useful markers in studies of renal tubular function and protein handling.

Alterations in AMBP expression and processing have been investigated in several disease contexts including kidney injury, inflammatory disorders, and tumor biology. Changes in Alpha-1-microglobulin levels have been associated with oxidative stress and tubular dysfunction, while Bikunin has been examined for its role in extracellular protease regulation and tissue remodeling. These biological roles make AMBP an important protein for research examining interactions between oxidative stress responses, protease inhibition, and plasma protein metabolism.

AMBP Antibody Mouse Monoclonal AMBP/4533 supports research applications focused on detecting the Alpha-1-microglobulin-bikunin precursor and its derived protein products in tissues and biological samples. Cytoplasmic staining patterns correspond with hepatic synthesis and intracellular processing of the precursor protein, enabling studies of liver-derived plasma proteins, renal protein handling, and oxidative stress biology.

Application Notes

Optimal dilution of the AMBP antibody mouse monoclonal AMBP/4533 should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 200-353) from the human protein was used as the immunogen for the AMBP antibody.

Storage

Aliquot the AMBP antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.