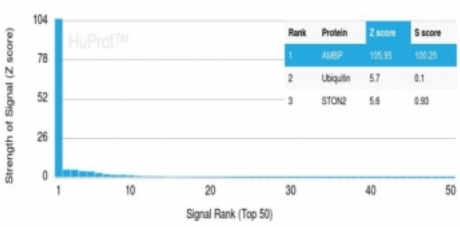
AMBP Antibody / Plasma Glycoprotein Marker Antibody [clone AMBP/4533] (V5300)

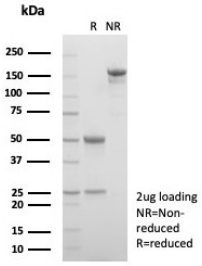
Catalog No.	Formulation	Size
V5300-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5300-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5300SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

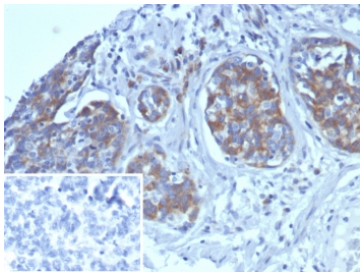
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	AMBP/4533
Purity	Protein A/G affinity
UniProt	P02760
Localization	Secreted
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations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



AMBP Antibody Protein Microarray Validation. Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using AMBP Antibody demonstrates highly selective recognition of Alpha-1-microglobulin-bikunin precursor / AMBP with exceptionally strong separation from non-target proteins across the tested human proteome. This plasma glycoprotein marker antibody produced the strongest binding signal for AMBP, with substantially lower Z-scores observed for unrelated proteins including Ubiquitin and STON2, supporting preferential target recognition. These results demonstrate the foremost specificity of the AMBP/4533 mAb and support highly specific detection of extracellular glycoprotein-associated signaling pathways. The Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. The markedly elevated S-score separation observed for AMBP supports minimal off-target binding across the tested human proteome.



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



AMBP Antibody Ovarian Cancer IHC. Immunohistochemistry analysis of formalin-fixed, paraffin-embedded human ovarian carcinoma tissue stained with AMBP Antibody demonstrates prominent cytoplasmic HRP-DAB brown staining within tumor epithelial cell populations, consistent with Alpha-1-microglobulin-bikunin precursor / AMBP-associated extracellular glycoprotein expression. Surrounding stromal components demonstrate comparatively weaker staining, supporting enrichment of AMBP-associated secretory pathway signaling within neoplastic epithelial structures. This plasma glycoprotein marker antibody highlights extracellular regulatory signaling and secretory protein-associated biology in ovarian cancer tissue. Inset: PBS used in place of primary antibody demonstrates minimal background staining in the negative control section. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling prior to antibody incubation.

Description

Alpha-1-microglobulin/bikunin precursor (AMBP) is a secreted plasma glycoprotein precursor that undergoes proteolytic processing to generate alpha-1-microglobulin and bikunin, two biologically distinct proteins involved in extracellular protease regulation, oxidative stress responses, inflammatory signaling, and tissue homeostasis. AMBP is synthesized primarily in hepatocytes and secreted into circulation, where its processed products contribute to plasma protein transport, extracellular matrix regulation, immune-associated signaling pathways, and protection against oxidative tissue injury. AMBP Antibody is useful for investigations involving plasma glycoprotein biology, extracellular protease regulation, inflammatory signaling, and liver-associated secretory pathway regulation.

AMBP antibody, also referred to as Alpha 1 microglobulin antibody, Bikunin antibody, Protein HC antibody, and Alpha-1-microglobulin/bikunin precursor antibody in the literature, recognizes a secreted glycoprotein precursor encoded on chromosome 9q32. AMBP-derived proteins are detected in plasma, liver, kidney, and epithelial-associated tissues where they participate in extracellular protease inhibition, scavenging of oxidative metabolites, inflammatory regulation, and tissue-protective signaling pathways. Alpha-1-microglobulin functions in heme and free radical scavenging, while bikunin contributes to extracellular protease inhibition and matrix-associated signaling regulation.

AMBP Antibody / Plasma Glycoprotein Marker Antibody (clone AMBP/4533) is uniquely positioned for studies involving circulating glycoprotein biology and extracellular regulatory signaling pathways. This mouse monoclonal antibody demonstrates strong immunohistochemical detection together with highly selective HuProt(TM) microarray specificity validation against more than 19,000 full-length human proteins. The combined validation profile supports use of clone AMBP/4533 in investigations involving plasma protein-associated signaling, extracellular protease regulation, oxidative stress-associated biology, and liver-derived secretory pathway regulation.

Analysis of HuProt(TM) microarrays containing more than 19,000 individually purified full-length human proteins demonstrated highly selective recognition of AMBP by clone AMBP/4533. In HuProt(TM) analysis, the Z-score represents the strength of antibody binding signal relative to the overall array mean, while the S-score reflects target specificity relative to the next highest ranked protein signal. Elevated S-score separation supports preferential target recognition and reduced off-target binding across the tested human proteome. This specificity validation strategy supports highly selective detection of circulating glycoprotein-associated signaling pathways in complex tissue systems.

AMBP-associated signaling has been linked to inflammatory regulation, renal physiology, oxidative stress responses, extracellular matrix-associated protease activity, and tissue injury-associated signaling pathways. Because AMBP-derived proteins circulate broadly and participate in extracellular protective mechanisms, AMBP serves as an important marker for investigations involving plasma-derived regulatory proteins and tissue homeostasis-associated signaling biology. Altered expression of AMBP-associated proteins has additionally been linked to liver disease, renal dysfunction, inflammatory disorders, and tumor-associated extracellular signaling environments.

This AMBP Antibody supports research involving plasma glycoprotein biology, extracellular protease signaling, oxidative stress-associated regulation, inflammatory signaling pathways, liver-associated secretory biology, tissue homeostasis regulation, and extracellular matrix-associated signaling. Clone AMBP/4533 may be incorporated into immunohistochemistry and tissue-based investigations examining circulating glycoprotein-associated signaling pathways in normal and diseased tissues.

Explore additional extracellular signaling and secreted protein markers on our Signal Transduction Antibodies page, including antibodies targeting inflammatory regulation, extracellular protease signaling, and tissue homeostasis-associated pathways.

Application Notes

Optimal dilution of the AMBP Antibody / Plasma Glycoprotein Marker Antibody 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.

Alternate Names

AMBP antibody, Alpha 1 microglobulin antibody, Bikunin antibody, Alpha-1-microglobulin/bikunin precursor antibody, Inter-alpha-trypsin inhibitor light chain antibody, Protein HC antibody

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