

AMBP Antibody (N-term) (Ascites)
Mouse Monoclonal Antibody (Mab)
Catalog # AM2100a**Specification**

AMBP Antibody (N-term) (Ascites) - Product Information

Application	WB,E
Primary Accession	P02760
Other Accession	NP_001624.1
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2b
Calculated MW	38999
Antigen Region	77-104

AMBP Antibody (N-term) (Ascites) - Additional Information**Gene ID** 259**Other Names**

Protein AMBP, Alpha-1-microglobulin, Protein HC, Alpha-1 microglycoprotein, Complex-forming glycoprotein heterogeneous in charge, Inter-alpha-trypsin inhibitor light chain, ITI-LC, Bikunin, EDC1, HI-30, Uronic-acid-rich protein, Trypstatin, AMBP, HCP, ITIL

Target/Specificity

This AMBP antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 77-104 amino acids from the N-terminal region of human AMBP.

Dilution

WB~~1:500~1000

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

AMBP Antibody (N-term) (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

AMBP Antibody (N-term) (Ascites) - Protein Information**Name** AMBP**Synonyms** HCP, ITIL

Function [Alpha-1-microglobulin]: Antioxidant and tissue repair protein with reductase, heme-binding and radical-scavenging activities. Removes and protects against harmful oxidants and repairs macromolecules in intravascular and extravascular spaces and in intracellular compartments (PubMed:[11877257](#), PubMed:[15683711](#), PubMed:[22096585](#), PubMed:[23157686](#), PubMed:[23642167](#), PubMed:[25698971](#), PubMed:[32092412](#), PubMed:[32823731](#)). Intravascularly, plays a regulatory role in red cell homeostasis by preventing heme- and reactive oxygen species-induced cell damage. Binds and degrades free heme to protect fetal and adult red blood cells from hemolysis (PubMed:[11877257](#), PubMed:[32092412](#)). Reduces extracellular methemoglobin, a Fe³⁺ (ferric) form of hemoglobin that cannot bind oxygen, back to the Fe²⁺ (ferrous) form deoxyhemoglobin, which has oxygen-carrying potential (PubMed:[15683711](#)). Upon acute inflammation, inhibits oxidation of low-density lipoprotein particles by MPO and limits vascular damage (PubMed:[25698971](#)). Extravascularly, protects from oxidation products formed on extracellular matrix structures and cell membranes. Catalyzes the reduction of carbonyl groups on oxidized collagen fibers and preserves cellular and extracellular matrix ultrastructures (PubMed:[22096585](#), PubMed:[23642167](#)). Importantly, counteracts the oxidative damage at blood-placenta interface, preventing leakage of free fetal hemoglobin into the maternal circulation (PubMed:[21356557](#)). Intracellularly, has a role in maintaining mitochondrial redox homeostasis. Bound to complex I of the respiratory chain of mitochondria, may scavenge free radicals and preserve mitochondrial ATP synthesis. Protects renal tubule epithelial cells from heme-induced oxidative damage to mitochondria (PubMed:[23157686](#), PubMed:[32823731](#)). Reduces cytochrome c from Fe³⁺ (ferric) to the Fe²⁺ (ferrous) state through formation of superoxide anion radicals in the presence of ascorbate or NADH/NADPH electron donor cofactors, ascorbate being the preferred cofactor (PubMed:[15683711](#)). Has a chaperone role in facilitating the correct folding of bikunin in the endoplasmic reticulum compartment (By similarity).

Cellular Location

[Alpha-1-microglobulin]: Secreted. Endoplasmic reticulum. Cytoplasm, cytosol. Cell membrane; Peripheral membrane protein. Nucleus membrane; Peripheral membrane protein. Mitochondrion inner membrane; Peripheral membrane protein. Secreted, extracellular space, extracellular matrix. Note=The cellular uptake occurs via a non-endocytotic pathway and allows for localization to various membrane structures. A specific binding to plasma membrane suggests the presence of a cell receptor, yet to be identified Directly binds collagen fibers type I.

Tissue Location

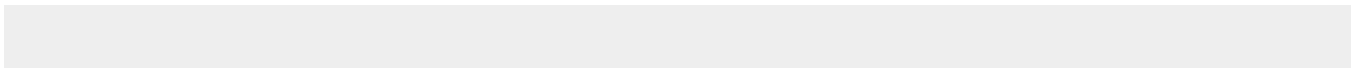
[Alpha-1-microglobulin]: Expressed by the liver and secreted in plasma. Occurs in many physiological fluids including plasma, urine, and cerebrospinal fluid (PubMed:[11877257](#)). Expressed in epidermal keratinocytes, in dermis and epidermal-dermal junction (at protein level) (PubMed:[22096585](#)). Expressed in red blood cells (at protein level) (PubMed:[32092412](#)). Expressed in placenta (PubMed:[21356557](#)).

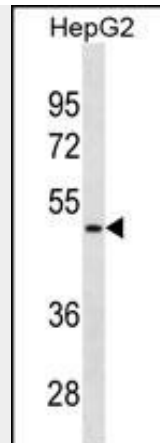
AMBP Antibody (N-term) (Ascites) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

AMBP Antibody (N-term) (Ascites) - Images





AMBP Antibody (N-term)(Ascites)(Cat. #AM2100a) western blot analysis in HepG2 cell line lysates (35µg/lane). This demonstrates the AMBP antibody detected the AMBP protein (arrow).

AMBP Antibody (N-term) (Ascites) - Background

This gene encodes a complex glycoprotein secreted in plasma. The precursor is proteolytically processed into distinct functioning proteins: alpha-1-microglobulin, which belongs to the superfamily of lipocalin transport proteins and may play a role in the regulation of inflammatory processes, and bikunin, which is a urinary trypsin inhibitor belonging to the superfamily of Kunitz-type protease inhibitors and plays an important role in many physiological and pathological processes. This gene is located on chromosome 9 in a cluster of lipocalin genes.

AMBP Antibody (N-term) (Ascites) - References

- Olsson, M.G., et al. *Radiat. Res.* 174(5):590-600(2010)
- Allhorn, M., et al. *Blood* 99(6):1894-1901(2002)
- Amoresano, A., et al. *Eur. J. Biochem.* 267(7):2105-2112(2000)
- Xu, Y., et al. *J. Mol. Biol.* 276(5):955-966(1998)
- Vetr, H., et al. *Biol. Chem. Hoppe-Seyler* 371(12):1185-1196(1990)