

AMBP Antibody
Rabbit mAb
Catalog # AP91429

Specification

AMBP Antibody - Product Information

Application	WB, IHC
Primary Accession	P02760
Clonality	Monoclonal
Other Names	
A1M; alpha 1 microglobulin bikunin; Alpha 1 microglycoprotein; AMBP; Bikunin; EDC1; HI30;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	38999 Da

AMBP Antibody - Additional Information

Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human AMBP
Description	Inter-alpha-trypsin inhibitor inhibits trypsin, plasmin, and lysosomal granulocytic elastase. Inhibits calcium oxalate crystallization. Trypstatin is a trypsin inhibitor.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

AMBP Antibody - 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](http://www.uniprot.org/citations/11877257)), PubMed: [15683711](http://www.uniprot.org/citations/15683711), PubMed: [22096585](http://www.uniprot.org/citations/22096585), PubMed: [23157686](http://www.uniprot.org/citations/23157686), PubMed: [23642167](http://www.uniprot.org/citations/23642167), PubMed: [25698971](http://www.uniprot.org/citations/25698971), PubMed: [32092412](http://www.uniprot.org/citations/32092412)),

PubMed: [32823731](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/11877257), PubMed: [32092412](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/15683711)). Upon acute inflammation, inhibits oxidation of low-density lipoprotein particles by MPO and limits vascular damage (PubMed: [25698971](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/22096585), PubMed: [23642167](http://www.uniprot.org/citations/23642167)). Importantly, counteracts the oxidative damage at blood-placenta interface, preventing leakage of free fetal hemoglobin into the maternal circulation (PubMed: [21356557](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/23157686), PubMed: [32823731](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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).

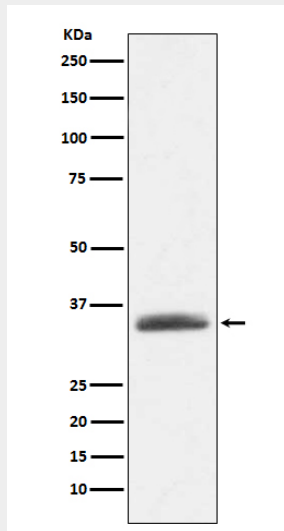
AMBP Antibody - Protocols

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 - Images



Western blot analysis of AMBP expression in human plasma lysate.