

Bikunin / AMBP Antibody
Rabbit Polyclonal Antibody
Catalog # ALS17159**Specification**

Bikunin / AMBP Antibody - Product Information

Application	IHC-P
Primary Accession	P02760
Other Accession	259
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	38999

Bikunin / AMBP Antibody - Additional Information**Gene ID** 259**Other Names**

AMBP, A1M, Alpha-1-microglobulin, Bikunin, HCP, IATIL, ITIL, HI30, ITI, ITILC, Protein AMBP, Uronic-acid-rich protein, UTI, Trypstatin, Uristatin, EDC1, Growth-inhibiting protein 19, Protein HC

Target/Specificity

Human Bikunin / AMBP

Reconstitution & Storage

PBS, pH 7.4, 0.03% Proclin 300, 50% glycerol. Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions

Bikunin / AMBP Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Bikunin / 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, PubMed:25698971, PubMed:32823731, PubMed:32092412). 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:23642167, PubMed:22096585). 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).

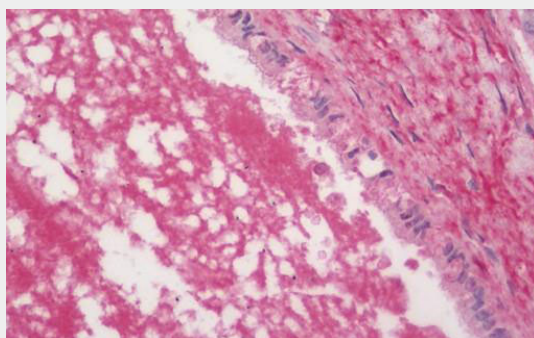
Bikunin / AMBP Antibody - Protocols

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

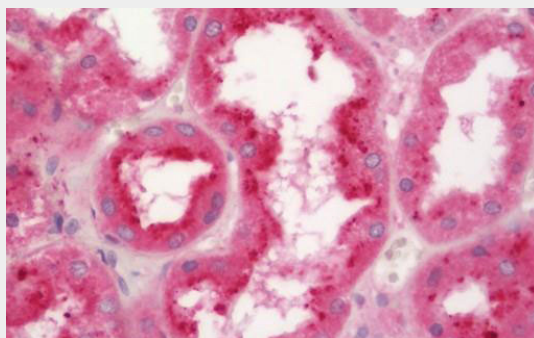
- [Western Blot](#)
- [Blocking Peptides](#)

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

Bikunin / AMBP Antibody - Images



Human Pancreas: Formalin-Fixed, Paraffin-Embedded (FFPE)



Human Kidney: Formalin-Fixed, Paraffin-Embedded (FFPE)

Bikunin / AMBP Antibody - Background

Inter-alpha-trypsin inhibitor inhibits trypsin, plasmin, and lysosomal granulocytic elastase. Inhibits calcium oxalate crystallization.

Bikunin / AMBP Antibody - References

Traboni C., et al. Nucleic Acids Res. 14:6340-6340(1986).
Kaumeyer J.F., et al. Nucleic Acids Res. 14:7839-7850(1986).
Vetr H., et al. Biol. Chem. Hoppe-Seyler 371:1185-1196(1990).
Diarra-Mehrpour M., et al. Eur. J. Biochem. 191:131-139(1990).
Kim J.W., et al. Submitted (FEB-2004) to the EMBL/GenBank/DDBJ databases.