



Rabbit Anti-Alpha 1 microglobulin antibody

SL6512R

Product Name:	Alpha 1 microglobulin
Chinese Name:	α 1微球蛋白抗体
Alias:	alpha 1 Microglobulin; Alpha 1 microglobulin/bikunin precursor; Alpha-1 microglycoprotein; AMBP; AMBP_HUMAN; Bikunin; Complex-forming glycoprotein heterogeneous in charge; EDC1; Growth inhibiting protein 19; HCP; HI 30; HI-30; HI30; IATIL; Inter alpha trypsin inhibitor light chain; ITI; ITI LC; ITI-LC; ITIL; ITILC; Kunitz domain; Plasma protein; Protein HC; Proteinase inhibitor; Trypstatin; Uronic-acid-rich protein; UTI
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	7/16kDa
Cellular localization:	Secretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Protein AMBP:281-352/352
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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.

Function:

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

Trypstatin is a trypsin inhibitor

Subunit:

I-alpha-I plasma protease inhibitors are assembled from one or two heavy chains (H1, H2 or H3) and one light chain, bikunin. Inter-alpha-inhibitor (I-alpha-I) is composed of H1, H2 and bikunin, inter-alpha-like inhibitor (I-alpha-LI) of H2 and bikunin, and pre-alpha-inhibitor (P-alpha-I) of H3 and bikunin. Alpha-1-microglobulin occurs as a monomer and also in complexes with IgA and albumin. Alpha-1-microglobulin interacts with FN1. Trypstatin is a monomer and also occurs as a complex with trypsin in mast cells (By similarity). Alpha-1-microglobulin and bikunin interact (via SH3 domain) with HEV ORF3 protein.

Subcellular Location:

Secreted.

Tissue Specificity:

Expressed by the liver and secreted in plasma. Alpha-1-microglobulin occurs in many physiological fluids including plasma, urine, and cerebrospinal fluid. Inter-alpha-trypsin inhibitor is present in plasma and urine.

Post-translational modifications:

The precursor is proteolytically processed into separately functioning proteins. 3-hydroxykynurenine, an oxidized tryptophan metabolite that is common in biological fluids, reacts with Cys-53, Lys-111, Lys-137, and Lys-149 to form heterogeneous polycyclic chromophores including hydroxanthommatin. The reaction by alpha-1-microglobulin is autocatalytic; the human protein forms chromophore even when expressed in insect and bacterial cells. The chromophore can react with accessible cysteines forming non-reducible thioether cross-links with other molecules of alpha-1-microglobulin or with other proteins such as Ig alpha-1 chain C region 'Cys-352'.

Heavy chains are interlinked with bikunin via a chondroitin-4-sulfate bridge to their C-terminal aspartate (By similarity).

N- and O-glycosylated. N-glycan heterogeneity at Asn-115: Hex5HexNAc4 (major), Hex6HexNAc5 (minor) and dHex1Hex6HexNAc5 (minor). N-glycan at Asn-250: Hex5HexNAc4. O-linkage of the glycosaminoglycan, chondroitin sulfate, at Ser-215 allows cross-linking between the three polypeptide chains.

Similarity:

In the N-terminal section; belongs to the calycinsuperfamily. Lipocalin family.
Contains 2 BPTI/Kunitz inhibitor domains.

SWISS:
P02760

Gene ID:
259

Database links:

[Entrez Gene: 259](#)Human

[Entrez Gene: 25377](#)Rat

[Omim: 176870](#)Human

[SwissProt: P02760](#)Human

[SwissProt: Q64240](#)Rat

[Unigene: 436911](#)Human

[Unigene: 18721](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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