

**Anti-Alpha-2-MACROGLOBULIN (GOAT) Antibody**  
**Alpha-2-Macroglobulin Antibody**  
**Catalog # ASR3918****Specification**

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**Anti-Alpha-2-MACROGLOBULIN (GOAT) Antibody - Product Information**

Host	Goat
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	Anti-alpha-2-macroglobulin antibody has been tested by western blot and is suitable for ELISA and Immunohistochemistry applications. Anti-alpha-2-MACROGLOBULIN antibody should be optimized by the end user for the specific reactive conditions.
Physical State	Lyophilized
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	a2-Macroglobulin [Human Plasma]
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Preservative	0.01% (w/v) Sodium Azide

**Anti-Alpha-2-MACROGLOBULIN (GOAT) Antibody - Additional Information****Gene ID 2****Other Names**

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**Purity**

Anti-alpha-2-MACROGLOBULIN is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum as well as purified and partially purified a2-Macroglobulin [Human Plasma]. Cross reactivity against a2-Macroglobulin from other sources is unknown.

**Storage Condition**

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

## Anti-Alpha-2-MACROGLOBULIN (GOAT) Antibody - Protein Information

**Name** A2M

**Synonyms** CPAMD5

### Function

Is able to inhibit all four classes of proteinases by a unique 'trapping' mechanism. This protein has a peptide stretch, called the 'bait region' which contains specific cleavage sites for different proteinases. When a proteinase cleaves the bait region, a conformational change is induced in the protein which traps the proteinase. The entrapped enzyme remains active against low molecular weight substrates (activity against high molecular weight substrates is greatly reduced). Following cleavage in the bait region, a thioester bond is hydrolyzed and mediates the covalent binding of the protein to the proteinase.

### Cellular Location

Secreted.

### Tissue Location

Secreted in plasma..

## Anti-Alpha-2-MACROGLOBULIN (GOAT) 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](#)

## Anti-Alpha-2-MACROGLOBULIN (GOAT) Antibody - Images

## Anti-Alpha-2-MACROGLOBULIN (GOAT) Antibody - Background

Alpha-2-Macroglobulin detects Macroglobulin. Alpha-2-MACROGLOBULIN is a large plasma protein found in the blood. It is produced by the liver, and is a major component of the alpha-2 band in protein electrophoresis. Alpha 2-Macroglobulin is the largest major nonimmunoglobulin protein in plasma. The alpha 2-macroglobulin molecule is synthesized mainly in liver, but also locally by macrophages, fibroblasts, and adrenocortical cells. Alpha 2 macroglobulin acts as an antiprotease and is able to inactivate an enormous variety of proteinases. It functions as an inhibitor of fibrinolysis by inhibiting plasmin and kallikrein. It functions as an inhibitor of coagulation by inhibiting thrombin. Alpha 2-macroglobulin may act as a carrier protein because it also binds to numerous growth factors and cytokines, such as platelet-derived growth factor, basic fibroblast growth factor, TGF- $\beta$ , insulin, and IL-1 $\beta$ . No specific deficiency with associated disease has been recognized, and no disease state is attributed to low concentrations of Alpha 2 macroglobulin. The concentration of alpha 2 macroglobulin rises 10-fold or more in the nephrotic syndrome when other lower molecular weight proteins are lost in the urine. The loss of alpha 2 macroglobulin into urine is prevented by its large size. The net result is that alpha 2 macroglobulin reaches serum levels equal

to or greater than those of albumin in the nephrotic syndrome, which has the effect of maintaining oncotic pressure. Antialpha-2-macroglobulin is ideal for investigators involved in serum component protein research.