

Alpha 2 Macroglobulin Antibody

Purified Rabbit Polyclonal Antibody Catalog # ABV11654

Specification

Alpha 2 Macroglobulin Antibody - Product Information

Application WB
Primary Accession P01023
Reactivity Human
Host Rabbit
Clonality Polyclonal
Isotype rabbit IgG
Calculated MW 163291

Alpha 2 Macroglobulin Antibody - Additional Information

Gene ID 2

Other Names

C3 and PZP-like alpha-2-macroglobulin domain containing protein 5, A2M, CPAMD5, FWP007

Target/Specificity

Alpha 2 Macroglobulin

Formulation

100 μ g (0.5 mg/ml) of antibody in PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin®, and 50 % glycerol.

Handling

The antibody solution should be gently mixed before use.

Background Descriptions

Precautions

Alpha 2 Macroglobulin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Alpha 2 Macroglobulin 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.

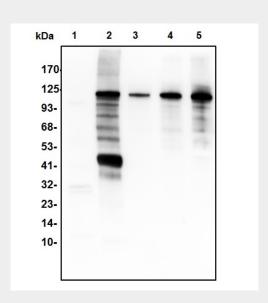
Tissue Location Secreted in plasma...

Alpha 2 Macroglobulin Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Alpha 2 Macroglobulin Antibody - Images



Western blot with human alpha2 Macroglobulin antibody: lane1: M.muscle lysate 33ug; lane2: human serum 1ug; lane3: Human alpha2 Macroglobulin 2ng; lane4: Human alpha2 Macroglobulin 10ng; lane5: Human alpha2 Macroglobulin 50ng.

Alpha 2 Macroglobulin Antibody - Background

Alpha 2 macroglobulin (A2M) is a major serum protein found at concentrations of 240 mg per 100 ml in men and 290 mg per 100 ml in women. It functions as a broad-spectrum protease-binding protein. It is produced by the liver, and is a major component of the alpha-2 band in protein electrophoresis. It is a large plasma glycoprotein that has long been known as an irreversible inhibitor of a variety of proteinases. More recently, it has been reported that numerous growth factors, cytokines and hormones bind to alpha 2M through diverse mechanisms. A2M is also





produced in the brain where it binds multiple extracellular ligands and is internalized by neurons and astrocytes. In the brain of Alzheimer's disease (AD) patients, A2M has been localized to diffuse amyloid plaques. A2M also binds soluble beta-amyloid, of which it mediates degradation. Protease-conjugated alpha2-macroglobulin is selectively bound by cells contacting the body fluids and alpha2-macroglobulin and its protease cargo are then internalized and degraded in secondary lysosomes of those cells.