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Datasheet for ABIN7317712

**alpha 2 Macroglobulin Protein (His tag)**

## Overview

|                               |  |
|-------------------------------|--|
| Quantity:                     | 50 µg  |
| Target:                       | alpha 2 Macroglobulin (A2M)                                  |
| Origin:                       | Human  |
| Source:                       | Baculovirus infected Insect Cells                            |
| Protein Type:                 | Recombinant  |
| Biological Activity:          | Active   |
| Purification tag / Conjugate: | This alpha 2 Macroglobulin protein is labelled with His tag. |

## Product Details

|                              |   |
|------------------------------|---|
| Purpose:                     | Recombinant Human A2M/CPAMD5/Alpha-2-macroglobulin Protein (His Tag)(Active)  |
| Sequence:                    | Met 1-Ala 1474  |
| Characteristics:             | A DNA sequence encoding the human A2M (NP_000005.2) (Met 1-Ala 1474) was expressed, fused with a polyhistidine tag at the C-terminus.   |
| Purity:                      | > 92 % as determined by reducing SDS-PAGE.  |
| Endotoxin Level:             | < 1.0 EU per µg as determined by the LAL method.  |
| Biological Activity Comment: | Measured by its ability to trap trypsin. The trapped trypsin is no longer able to interact with protein substrates or inhibitors, but still able to cleave small peptide substrates or inhibitors. The IC50 value is <5 nM. |

## Target Details

|         |                             |
|---------|-----------------------------|
| Target: | alpha 2 Macroglobulin (A2M) |
|---------|-----------------------------|

## Target Details

Alternative Name: A2M/CPAMD5/Alpha-2-macroglobulin ([A2M Products](#))

Background: Background: alpha-2-macroglobulin, also known as α2-macroglobulin (α2M and A2M), is an abundant protein of the plasma of vertebrates and members of several invertebrate phyla and functions as a broad-spectrum protease-binding protein. alpha-2-macroglobulin is produced by the liver, and is a major component of the alpha-2 band in protein electrophoresis. alpha-2-macroglobulin 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. In addition to this function as an agent for protease clearance, alpha2-macroglobulin binds a variety of other ligands, including several peptide growth factors and modulates the activity of a lectin-dependent cytolytic pathway in arthropods.

Synonym: A2MD;CPAMD5;FWP007;S863-7

Molecular Weight: 164 kDa

NCBI Accession: [NP\\_000005](#)

Pathways: [Lipid Metabolism](#)

## Application Details

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from sterile 20 mM Tris, 500 mM NaCl, pH 7.4

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted

samples are stable at < -20°C for 3 months.