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Recombinant Human Alpha-2-macroglobulin/A2M Protein

Catalog No.: RP00785 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	2	P01023

Tags
C-8His

Synonyms
A2M，Alpha-2-macroglobulin，Alpha-2-M，CPAMD5

Product Information

Source
HEK293 cells

Purification
> 95 % as determined by SDS-PAGE.

Calculated MW
161.9 kDa

Observed MW

Endotoxin
< 0.01 EU/μg of the protein by LAL method.

Formulation
Lyophilized from 0.22μm filtered solution in PBS (pH 7.4).

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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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.

Basic Information

Description
Recombinant Human Alpha-2-macroglobulin/A2M Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Ser24-Ala1474) of Human Alpha-2-macroglobulin/A2M (Accession # NP_000005.3) fused with His tag at the C-Terminus.

Bio-Activity

Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.