9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

A2M Human

Macroglobulin Alpha-2 Human
NTP0001

Product Overview

Name	A2M Human
Description	
Macroglobulin Alpha-2 Human	
Accession (Primary)	P01023
Synonyms	
Alpha-2-macroglobulin, Alpha-2-M, A2M, CPAMD5, FWP007, S863-7, alpha 2M, DKFZp779B086.	
Introduction	
Alpha-2 Macroglobulin is a serine proteases inhibitor, which inhibits coagulation by inactivating thrombin and Kallikrein, it inhibits fibrinolysis by inactivating plasmin and involved in transport. Alpha-2-Macroglobulin is a large plasma protein, which is produced by the liver, it's composed of 4 identical subunits bound together by -S-S- bonds. A2M is able to inactivate many kinds of proteinases (including serine-, cysteine-, aspartic- and metalloproteinases). A2M has a 35 amino acid "bait" region in its structure. Proteinases bind and cleave the "bait" region become bound to A2M. Macrophage receptors recognize the proteinase-A2M complex and clear it from the system. A2M binds to and removes MMP-2 and MMP-9 (active forms of the gelatinase) from the circulation using scavenger receptors on the phagocytes. The levels of Alpha-2-macroglobulin are increased in nephrotic syndrome which is a condition where the kidneys start to leak out some of the smaller blood proteins. Due to its large size, A2-macroglobulin is retained in the bloodstream. Increased production of all proteins causes A2-macroglobulin concentration to increase. Chronic renal failure might lead to amyloid by alpha-2-macroglobulin. A2M is raised in cirrhosis, pregnancy and diabetes.	
Source	
Human Plasma.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
Lyophilized from a concentrated solution containing 5mM potassium phosphate buffer, pH 6.5 and 1:1 ratio (w/w) of Glycine.	
Stability	
Lyophilized A2M protein although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution and filter sterilization A2M can be stored at 4°C for up to 4 weeks. For long term storage and more	

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diluted solutions it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0%.

Solubility

It is recommended to reconstitute the lyophilized A2M in sterile 18MΩ-cm H 2 O.

Human Virus Test

Serum from each donor has been tested and found negative for antibody to HIV-1, HIV-2, HCV and HBV.

Precautions

A2M Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P01023)