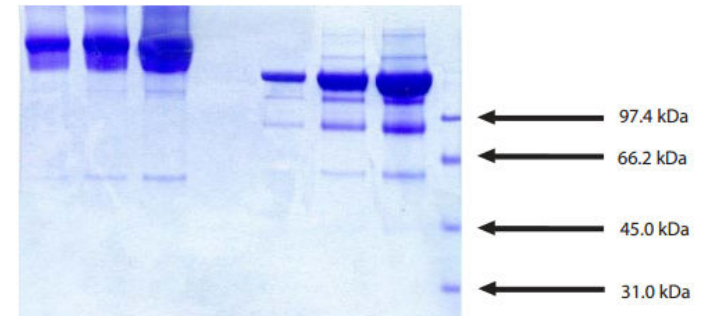


# Alpha 2 Macroglobulin, Human Plasma

<b>CATALOG #:</b>	7296-1000	1 mg
<b>ALTERNATE NAMES:</b>	C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5, A2M, CPAMD5, FWP007	
<b>SOURCE:</b>	Human Plasma. Shown to be non-reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.	
<b>PURITY:</b>	≥ 95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	725 kDa (Homotetramer, Subunit size: 180 kDa)	
<b>EXTINCTION COEFFICIENT:</b>	0.81	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Lyophilized from 30 mM Na Phosphate, pH 7.0, with glycine as a stabilizer.	
<b>STORAGE CONDITIONS:</b>	Store at -20°C or lower. Avoid repeated freezing and thawing cycles.	

**DESCRIPTION:** 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. 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. Multifunctional, it promotes growth of mammalian cells in culture, stimulates the regeneration of lymphocytes in irradiated mice, possesses a transport function for zinc and is a proteinase inhibitor that controls the clotting and fibrinolytic system. Clinically levels are increased in liver cirrhosis, nephrotic syndrome, diabetes, and severe burn cases.



## Alpha 2 Macroglobulin, Human Plasma

4-12% Bis-Tris NuPAGE gel

1. Alpha 2 Macroglobulin - 5 µg (non-reduced / no heat)
2. Alpha 2 Macroglobulin - 10 µg (non-reduced / no heat)
3. Alpha 2 Macroglobulin - 20 µg (non-reduced / no heat)
4. Alpha 2 Macroglobulin - 5 µg (reduced / heated)
5. Alpha 2 Macroglobulin - 10 µg (reduced / heated)
6. Alpha 2 Macroglobulin - 20 µg (reduced / heated)
7. LMW Standard

## RELATED PRODUCTS:

- Alpha 2 Macroglobulin, Human Plasma, Fast Form (Cat. No. 7297-1000)

**FOR RESEARCH USE ONLY! Not to be used in humans.**