

A2M

Native Human Alpha-2-Macroglobulin, Fast Form

Catalog No.	CRA116A CRA116B	Quantity:	500 µg 1.0 mg
Alternate Names:	Alpha-2-macroglobulin, Alpha-2-M, C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5		
Description:	Alpha 2 Macroglobulin (A2M) is a plasma protease inhibitor which has been shown to exist in two forms. The Slow Form of A2M (S-A2M) is the form which possesses the ability to bind and inhibit proteases by a "trap" method. The Fast Form of A2M (F-A2M) is generated when S-A2M undergoes a conformational change due to either entrapment of a protease in the A2M bait region, or chemical cleavage of an internal thiol ester bond located near the bait region. F-A2M does not possess the ability to bind and inhibit protease activity. F-A2M is rapidly taken up by the liver, with a half life of 2-4 minutes. In vivo, F-A2M typically represents only 0.17–0.7% of the total A2M in blood plasma of adults. The F-A2M plasma concentration is, however, increased in many disease states including pancreatitis, multiple sclerosis and sepsis. F-A2M has also been implicated in the inhibition of amyloid formation associated with Alzheimer's disease and spongiform encephalopathies.		
UniProt ID:	P01023		
Gene ID:	2		
Source:	Human Plasma		
Molecular Weight:	725 kDa, Homotetramer (180 MW subunit)		
Formulation:	Lyophilized from 100 mM Sodium Phosphate, pH 7.2		
Purity:	>95% pure by SDS-PAGE.		
Volume:	Lot specific volume, prior to lyophilization		
Extinction Coefficient:	$E^{0.1\%}_{280\text{nm}} = 0.81$		
Reconstitution:	Centrifuge vial prior to opening. Prepare the original volume with deionized water.		
Storage & Stability:	Stable at 2-8°C for shipping. Store at -80°C for up to 1 year. Upon initial thaw, prepare working aliquots and store at -80°C. Avoid repeated freeze-thaw cycles.		
Certification:	Purified from Human Plasma that was tested and found negative for HIV-1/2, HIV-1 antigen(s), HBsAg, STS, antiHCV, anti-HBcore and anti-HTLV I & II		

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