A2M Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	A2M, Polyclonal Antibody
Full Product Name	A2M, NT (A2M, CPAMD5, Alpha-2-macroglobulin, C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5) (MaxLight 405)
Product Gene Name	anti-A2M antibody
Product Synonym Names	A2M; CPAMD5; Alpha-2-macroglobulin; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight405.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight405 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	163,291 Da
Chromosome Location	Chromosome: 12; NC_000012.11 (9220304..9268558, complement). Location: 12p13.31
OMIM	103950
3D Structure	ModBase 3D Structure for P01023
Immunogen	A2M antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 92-120 amino acids from the N-terminal region of human A2M.
Conjugate	MaxLight405
Note	Preservative Free
Product Categories/Family for anti-A2M antibody	Antibodies; Protease Inhibitors
Applications Tested/Suitable for anti-A2M antibody	Western Blot (WB), FLISA
Application Notes for anti-A2M antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-A2M antibody	Alpha-2-macroglobulin is a protease inhibitor and cytokine transporter. It inhibits many proteases, including trypsin, thrombin and collagenase. A2M is implicated in Alzheimer disease (AD) due to its ability to mediate the clearance and degradation of A-beta, the major component of beta-amyloid deposits. [provided by RefSeq].
Product References and Citations for anti-A2M antibody	Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010). Bruno, E., et al. Neurosci. Lett. 482(2):112-116(2010). Nalpas, B., et al. Gut 59(8):1120-1126(2010). Song, H., et al. Neurosci. Lett. 479(2):143-145(2010). Seriramalu, R., et al. Electrophoresis 31(14):2388-2395(2010).

Other Notes	Small volumes of anti-A2M antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for A2M purchase	MBS6270281 is an antibody targeting A2M. Also known as A2M, NT (A2M, CPAMD5, Alpha-2-macroglobulin, C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5) (MaxLight 405). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for A2M. It may not necessarily be applicable to this product.

NCBI GI #	66932947
NCBI GeneID	2
NCBI Accession #	NP_000005.2
UniProt Primary Accession #	P01023
UniProt Secondary Accession #	Q13677; Q59F47; Q5QTS0; Q68DN2; Q6PIY3; Q6PN97
UniProt Related Accession #	P01023
GenBank Nucleotide #	NM_000014.4
NCBI Official Full Name	alpha-2-macroglobulin
NCBI Official Synonym Full Names	alpha-2-macroglobulin
NCBI Official Symbol	A2M
NCBI Official Synonym Symbols	A2MD; CPAMD5; FWP007; S863-7
UniProt Protein Name	Alpha-2-macroglobulin
UniProt Synonym Protein Names	C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5
Protein Family	Alpha-2-macroglobulin
UniProt Gene Name	A2M
UniProt Synonym Gene Names	CPAMD5; Alpha-2-M
UniProt Entry Name	A2MG_HUMAN
NCBI Protein Information	alpha-2-macroglobulin; alpha-2-M; C3 and PZP-like alpha-2-macroglobulin domain-containing protein 5
NCBI Summary for A2M	Alpha-2-macroglobulin is a protease inhibitor and cytokine transporter. It inhibits many proteases, including trypsin, thrombin and collagenase. A2M is implicated in Alzheimer disease (AD) due to its ability to mediate the clearance and degradation of A-beta, the major component of beta-amyloid deposits. [provided by RefSeq, Jul 2008]

UniProt Comments for A2M	A2M: Is able to inhibit all four classes of proteinases by a unique 'trapping' mechanism. This protein has a peptide stretch, called the 'bait region' which contains specific cleavage sites for different proteinases. When a proteinase cleaves the bait region, a conformational change is induced in the protein which traps the proteinase. The entrapped enzyme remains active against low molecular weight substrates (activity against high molecular weight substrates is greatly reduced). Following cleavage in the bait region a thioester bond is hydrolyzed and mediates the covalent binding of the protein to the proteinase. Belongs to the protease inhibitor I39 (alpha-2- macroglobulin) family. Protein type: Secreted, signal peptide; Inhibitor; Secreted Chromosomal Location of Human Ortholog: 12p13.31 Cellular Component: extracellular region; cytosol Molecular Function: serine-type endopeptidase inhibitor activity; protein binding; enzyme binding; protease binding; growth factor binding; interleukin-1 binding; interleukin-8 binding; calcium-dependent protein binding; tumor necrosis factor binding; receptor binding Biological Process: negative regulation of complement activation, lectin pathway; platelet activation; extracellular matrix disassembly; regulation of small GTPase mediated signal transduction; extracellular matrix organization and biogenesis; platelet degranulation; small GTPase mediated signal transduction; stem cell differentiation; blood coagulation; blood coagulation, intrinsic pathway Disease: Alzheimer Disease; Alpha-2-macroglobulin Deficiency
Research Articles on A2M	**1.** [review] alpha2M has many diversified and complex functions but is primarily known by its ability to inhibit a broad spectrum of proteases without the direct blockage of the protease active site.
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