

Product Datasheet

Alpha-2-Macroglobulin Antibody / A2M (orb1825830)

Catalog Number	orb1825830
Category	Antibodies
Description	<p>Alpha-2-Macroglobulin (Alpha-2M) is a homotetrameric serum protein consisting of four identical subunits that form dimers through disulfide bonds. Initially, Alpha-2M was characterized as a pan-proteinase inhibitor that was able to bait proteinases into cleaving specific peptide sequences on Alpha-2M. This interaction induces a conformational change in Alpha-2M, thus enabling it to trap the proteinase and further inhibit its activity. Subsequently, Alpha-2M has been shown to function as a carrier protein and regulator of cytokines during inflammation. Circulating transforming growth factor beta (TGFbeta) in serum is primarily bound to Alpha-2M, which renders TGFbeta inactive. Alpha-2M also binds to IL-6 and, thereby, increases the concentration of IL-6 near lymphocytes, hepatocytes and stem cells involved in mediating the inflammatory cascade. Mutations and deletions in the gene encoding Alpha-2M are associated with an increased incidence of Alzheimer s disease (AD), which is consistent with the role of Alpha-2M in mediating the clearance and degradation of A beta, the major component of beta-Amyloid deposits accumulated during AD.</p>
Clonality	Monoclonal
Species/Host	Mouse
Isotype	Mouse IgG
Conjugation	Unconjugated
Reactivity	Human
Buffer/Preservatives	0.2 mg/ml in 1X PBS with 0.1 mg/ml rAlbumin, 0.05% sodium azide
Purification	Protein A/G affinity

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Immunogen	A recombinant partial protein sequence (within amino acids 600-900) from the human protein was used as the immunogen for the Alpha-2-Macroglobulin antibody.
UniProt ID	P01023
Tested applications	IHC-P
Dilution range	Immunohistochemistry (FFPE): 1-2ug/ml for 30 minutes at RT
Application notes	Optimal dilution of the Alpha-2-Macroglobulin antibody should be determined by the researcher.
Antibody Type	Primary Antibody
Clone Number	A2M/4848
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only
Expiration Date	12 months from date of receipt.

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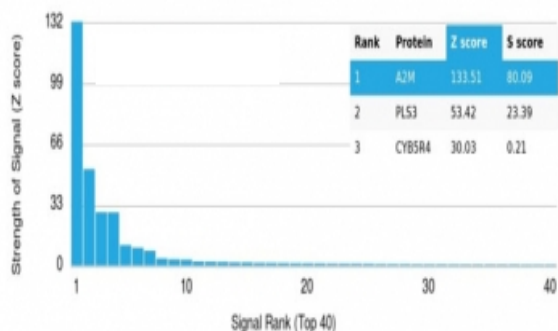
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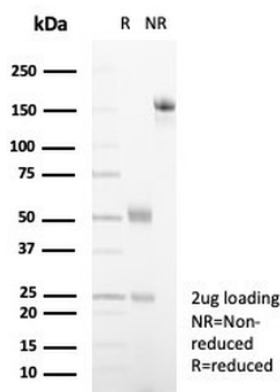
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Analysis of a HuProt (TM) microarray containing more than 19000 full-length human proteins using Alpha-2-Macroglobulin antibody (clone A2M/4848). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.



SDS-PAGE analysis of purified, BSA-free Alpha-2-Macroglobulin antibody (clone A2M/4848) as confirmation of integrity and purity.

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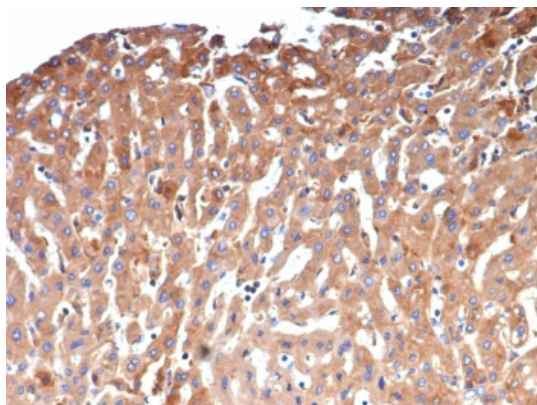
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IHC staining of FFPE human hepatocellular carcinoma tissue with Alpha-2-Macroglobulin antibody (clone A2M/4848). HIER: boil tissue sections in pH9 10 mM Tris with 1 mM EDTA for 20 min and allow to cool before testing.

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