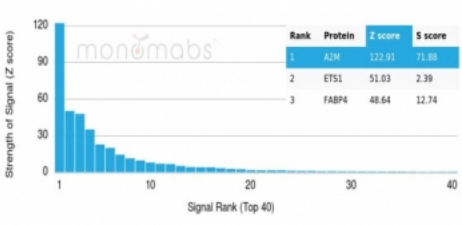
Alpha-2-Macroglobulin Antibody / A2M [clone A2M/4849] (V4250)

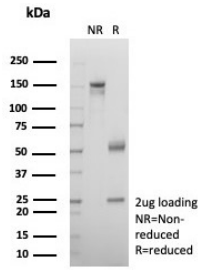
Catalog No.	Formulation	Size
V4250-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4250-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4250SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

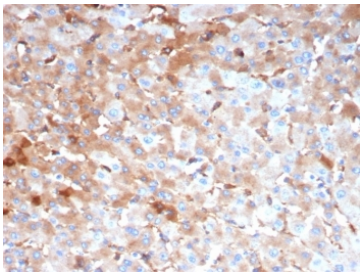
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	A2M/4849
Purity	Protein A/G affinity
UniProt	P01023
Localization	Secreted
Applications	Immunohistochemistry (FFPE) : 1-2ug/ml for 30 minutes at RT
Limitations	This Alpha-2-Macroglobulin antibody is available for research use only.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using Alpha-2-Macroglobulin antibody (clone A2M/4849). 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/4849) as confirmation of integrity and purity.



IHC staining of FFPE human hepatocellular carcinoma tissue with Alpha-2-Macroglobulin antibody (clone A2M/4849). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

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.

For additional information on A2M biology and a protein microarray-validated reagent with strong tissue-based validation, visit our Alpha-2-Macroglobulin Antibody / A2M Protease Inhibitor Antibody page.

Application Notes

Optimal dilution of the Alpha-2-Macroglobulin antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 604-748) from the human protein was used as the immunogen for the Alpha-2-Macroglobulin antibody.

Storage

Aliquot the Alpha-2-Macroglobulin antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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