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Datasheet for 200-101-207-0100

Alpha-2-Macroglobulin Antibody

Overview

Description:	Anti-Alpha-2-Macroglobulin (GOAT) Antibody - 200-101-207-0100
Item No.:	200-101-207-0100
Size:	100 µg
Applications:	WB, ELISA
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	Alpha-2-Macroglobulin detects Macroglobulin. Alpha-2-MACROGLOBULIN is a large plasma protein found in the blood. It is produced by the liver, and is a major component of the alpha-2 band in protein electrophoresis. Alpha 2-Macroglobulin is the largest major nonimmunoglobulin protein in plasma. The alpha 2-macroglobulin molecule is synthesized mainly in liver, but also locally by macrophages, fibroblasts, and adrenocortical cells. Alpha 2 macroglobulin acts as an antiprotease and is able to inactivate an enormous variety of proteinases. It functions as an inhibitor of fibrinolysis by inhibiting plasmin and kallikrein. It functions as an inhibitor of coagulation by inhibiting thrombin. Alpha 2-macroglobulin may act as a carrier protein because it also binds to numerous growth factors and cytokines, such as platelet-derived growth factor, basic fibroblast growth factor, TGF-β, insulin, and IL-1β. No specific deficiency with associated disease has been recognized, and no disease state is attributed to low concentrations of Alpha 2 macroglobulin. The concentration of alpha 2 macroglobulin rises 10-fold or more in the nephrotic syndrome when other lower molecular weight proteins are lost in the urine. The loss of alpha 2 macroglobulin into urine is prevented by its large size. The net result is that alpha 2 macroglobulin reaches serum levels equal to or greater than those of albumin in the nephrotic syndrome, which has the effect of maintaining oncotic pressure. Antialpha-2-macroglobulin is ideal for investigators involved in serum component protein research.
Synonyms:	goat anti-Alpha-2-Macroglobulin Antibody, A2M antibody, Alpha 2 M antibody, Alpha 2M antibody, CPAMD5 antibody, DKFZp779B086 antibody, FWP007 antibody, S863 7 antibody
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	A2M
Reactivity:	Human
Immunogen Type:	Native Protein
Immunogen:	a2-Macroglobulin [Human Plasma]
Purity/Specificity:	Anti-alpha-2-MACROGLOBULIN is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum as well as purified and partially purified a2-Macroglobulin [Human Plasma]. Cross reactivity against a2-Macroglobulin from other sources is unknown.
Relevant Links:	• UniProtKB - P01023 • NCBI - NP_000005.2 • GeneID - 2

Application Details

Tested Applications:	WB
Suggested Applications:	ELISA (Based on references)
Application Note:	Anti-alpha-2-macroglobulin antibody has been tested by western blot and is suitable for ELISA and Immunohistochemistry applications. Anti-alpha-2-MACROGLOBULIN antibody should be optimized by the end user for the specific reactive conditions.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:80,000 - 1:400,000
IHC:	User Optimized
WB:	1:2,000 - 1:20,000

Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/ml by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images

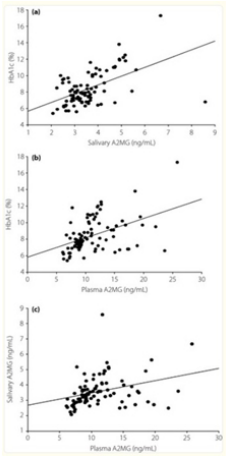
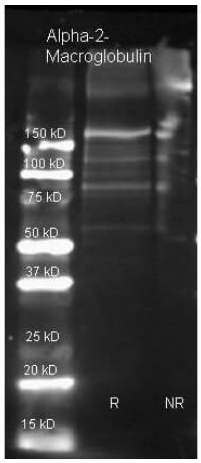
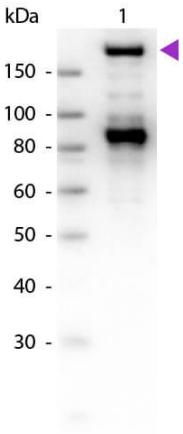


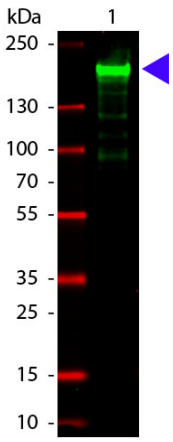
Figure
Simple linear regression for the association of (a) salivary alpha 2-macroglobulin (A2MG) with plasma glycated hemoglobin (HbA1c; r = 0.443, P < 0.001), (b) plasma A2MG with plasma HbA1c (r = 0.342, P = 0.001) and (c) salivary A2MG with plasma A2MG (r = 0.318, P = 0.002).
Fig 1. PMID: 27042270



Western Blot
Rockland Goat anti Alpha-2-Macroglobulin antibody (200-101-207 lot 20172) was used to detect Alpha-2-Macroglobulin under reducing (R) and non-reducing (NR) conditions. Reduced samples of purified target proteins contained 4% BME and were boiled for 5 minutes. Samples of ~1ug of protein per lane were run by SDS-PAGE. Protein was transferred to nitrocellulose and probed with 1:3000 dilution of primary antibody (ON 4 C in MB-070). Detection shown was using Dylight 649 conjugated Donkey anti goat (605-743-125 lot 20834 1:10K in TBS/MB-070) 1 hr RT. Images were collected using the BioRad VersaDoc System.



Western Blot
Western Blot of Goat Anti-Alpha-2-Macroglobulin antibody. Lane 1: Alpha-2-Macroglobulin. Lane 2: None. Load: 50 ng per lane. Primary antibody: Alpha-2-Macroglobulin antibody at 1:1,000 overnight at 4°C. Secondary antibody: Peroxidase goat secondary antibody at 1:40,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 163 kDa, 163 kDa for Alpha-2-Macroglobulin. Other band(s): Alpha-2-Macroglobulin splice variants and isoforms.



Western Blot
Western Blot of Goat anti-Alpha-2-Macroglobulin Antibody. Lane 1: Alpha-2-Macroglobulin. Lane 2: none. Load: 100 ng per lane. Primary antibody: Alpha-2-Macroglobulin antibody at 1:1000 for overnight at 4°C. Secondary antibody: DyLight™ 800 goat secondary antibody at 1:20,000 for 30 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 163 kDa, 178 kDa for Alpha-2-Macroglobulin. Other band(s): Alpha-2-Macroglobulin splice variants and isoforms.

References

- Asar D et al. Comprehensive Cytogenetic and Genomic Profiling of the Murine AML12 (Alpha Mouse Liver 12) Hepatocyte Cell Line. *Cells.* (2026)
- Luis DD et al. Decoding HuH-7: a comprehensive genetic and molecular portrait of a widely used hepatocellular carcinoma model. *Front Cell Dev Biol.* (2025)
- Asimakopoulou A et al. Perilipin 5 and Lipocalin 2 Expression in Hepatocellular Carcinoma. *Cancers (Basel).* (2019)
- Chung TJ et al. Association of salivary alpha 2-macroglobulin levels and clinical characteristics in type 2 diabetes. *J Diabetes Investig.* (2016)

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