



BMA BIOMEDICALS

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Monoclonal Antibody To Porcine Alpha-2-Macroglobulin **Marker for a major high-molecular weight protein in plasma**

Clone PSA24 is a unique monoclonal antibody developed against porcine α -2-Macroglobulin. α -2-Macroglobulin (α 2M) is a broad spectrum proteinase inhibitor synthesized mainly by hepatocytes, and locally by macrophages. The inhibitory mode of action uses a capturing mechanism through a peptide sequence ("bait region") which contains specific cleavage sites for different proteinases. When a proteinase cleaves the bait region, a conformational change and concomitant thioester bond hydrolysis is induced, leading to covalent binding of α 2M to the proteinase. The bound enzyme remains active against low molecular weight substrates while the activity against high molecular weight substrates is reduced. The proteinase- α 2M complex is recognized by macrophage receptors and cleared from the system.

α 2M is composed of four identical subunits arranged as a pair of disulfide-linked dimers, altogether with 720kDa molecular weight. α 2M is sensitive to hypochlorite which induces dissociation of native α 2M tetramers into stable dimers that are no longer able to trap proteases. Electrophoresis typically yields a 360kDa band in the native state, 180kDa with SDS-PAGE under non-reducing conditions. Reducing conditions (e.g. dithiothreitol DTT) will generate two different fragments with molecular mass of 93 and 87 kDa, respectively.

Product number: T-3525

Clone: PSA24

Lot: 01PO1531

TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Host species, subclass: Mouse IgG1

Quantity: 200 μ g

Format: Affinity purified from cell culture supernatant, lyophilized.
Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% (v/v) Kathon CG as a preservative.

Stability: Original vial: 1 year at 4° - 8°C. Minimize repeated thawing and freezing of the stock solution.

Applications: IHC (f+p), Western Blot. Each lot has been tested and validated for immunohistochemistry (IHC).
Approximate working dilution for IHC:
Frozen sections: 0.5-1 μ g/ml (1:200-1:400)
Paraffin sections: 5-10 μ g/ml (1:20-1:40) Proteinase K pretreatment for antigen retrieval is recommended.
Optimal dilutions should be determined by the end user.
Suggested positive control: swine kidney.
Please see www.bma.ch for protocols and general information.

Immunogen:	Porcine liver extract.
Antigen, epitope:	The antigen is alpha-2-macroglobulin, according to the results obtained in IHC and by immunoprecipitation and sequencing through nanoLC-ESI-MS/MS. The epitope has not been further characterized.
Antigen distribution:	Tissue sections: The antibody reacts with tissue sections of kidney, stomach, intestine, and testis.
Specificity:	Porcine: positive. Other: not tested

Selected references

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This product contains Kathon as a preservative and is intended for *in vitro* laboratory use and research purposes only. Purchase of this product does not include authorization to reverse engineer any part thereof, nor to use it in diagnostic or therapeutic applications.