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Product datasheet for TA363869

A2M Mouse Monoclonal Antibody [Clone ID: PSA24]

Product data:

Product Type:	Primary Antibodies
Clone Name:	PSA24
Applications:	ELISA, IHC, WB
Recommended Dilution:	**IHC (f+p), Western Blot.** Each lot has been tested and validated for immunohistochemistry (IHC). ***Approximate working dilution for IHC:*** Frozen sections: 0.5-1µg/ml (1:200-1:400) Paraffin sections: 5-10µg/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.
Reactivity:	Porcine
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Porcine liver extract.
Specificity:	Porcine: positive. Other: not tested **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. **Distribution**: Tissue sections: The antibody reacts with tissue sections of kidney, stomach, intestine, and testis.
Formulation:	Phosphate buffered saline pH 7.2 (PBS) with 5mg/ml BSA as a stabilizer and 0.05% (v/v) Kathon CG as a preservative. **State**: Lyophilized Affinity purified from cell culture supernatant.
Reconstitution Method:	Restore by adding 0.5 ml distilled water to a concentration of 0.2mg/ml IgG
Concentration:	N/A

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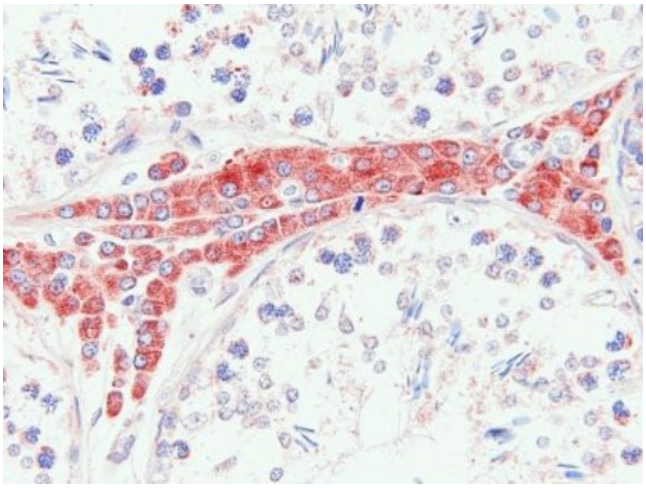
Conjugation: Unconjugated

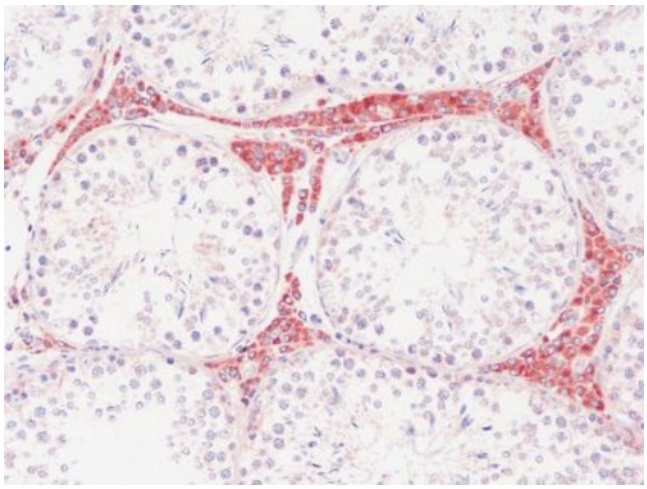
Storage: Original vial: 1 year at 4° - 8°C. Minimize repeated thawing and freezing of the stock solution.

Background: Clone PSA24 is a unique monoclonal antibody developed against porcine α-2-Macro- globulin. α-2-Macroglobulin (α2M) 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 α2M 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-α2M complex is recognized by macrophage receptors and cleared from the system. α2M is composed of four identical subunits arranged as a pair of disulfide-linked dimers, altogether with 720kDa molecular weight. α2M is sensitive to hypochlorite which induces dissociation of native α2M 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.

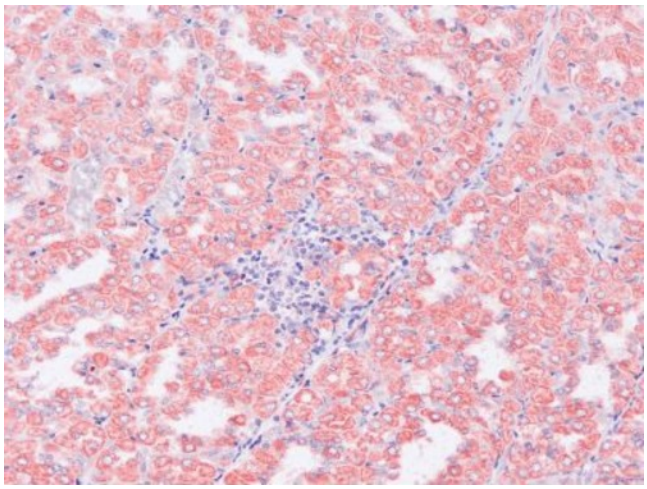
Product images:



TA363869, Clone PSA24, swine testis, paraffin section



TA363869, Clone PSA24, swine testis, paraffin section



TA363869, Clone PSA24, swine stomach, paraffin section