



Peninsula Laboratories, LLC

A Member of the Bachem Group

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Biotinylated Monoclonal Antibody To Mouse Metallophilic Macrophages

Marker For Cells With High Level Of Non-Specific Esterase Expression

Monoclonal antibody MOMA-1 is a useful marker for the identification of macrophage subpopulations in various organs, mostly characterized by a high level of non-specific esterase expression. Staining is particularly noteworthy with the metallophilic macrophages adjacent to the marginal zone of the spleen. MOMA-1 is also very suitable for differentiation of non-metallophilic marginal zone macrophages as detected by the monoclonal antibody ER-TR9 (product T-2010). In addition, MOMA-1 detects macrophages at inflammatory sites and is positive with Kupffer cells. The antigen is differentially induced in *in vitro* derived macrophages depending on the colony-stimulating factor applied (IL-3 > M-CSF > GM-CSF).

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|-------------------------------|--|
| Product Number: | T-2021 |
| Clone: | MOMA-1 |
| Host species, isotype: | Rat IgG2a |
| Quantity: | 200µg |
| Format: | Affinity purified, biotinylated, lyophilized Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.4mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% Kathon as a preservative. |
| Stability: | Original vial: 1 year at 4° - 8°C Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing. |
| Applications: | Tested for immunohistochemistry (IHC). Approximate working dilution for IHC: Frozen sections: 0.5-1µg/ml (1:400-1:800) Paraffin sections: does not react on routinely processed paraffin sections. Optimal dilutions should be determined by the end user. Suggested positive control: Mouse spleen. |
| Immunogen: | Mouse lymph node tissue. |
| Antigen, epitope: | The antigen is found intracellularly and on cell surface on metallophilic macrophages. |



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Antigen distribution:

Isolated cells: No reactivity of MOMA-1 was found with dendritic cells, peritoneal resident macrophages, peritoneal exudate cells, bone marrow or blood cells.

Tissue sections: Distinct macrophage subpopulations of lymphoid organs express the antigen. In the spleen, they are localized at the marginal sinus forming a ring around the periarteriolar lymphocyte sheath and follicular areas at the inner side of marginal zones. In lymph nodes, they are localized in the sinusoids and medullary cords, but not within follicular areas or paracortex. In Peyer's patches they are localized in the interfollicular areas at the serosal side. Kupffer cells in the liver can be clearly stained by MOMA-1. No MOMA-1-positive macrophages were found in the thymus, brain, kidney, liver, skin or heart. In non-lymphoid organs, the antigen is only found on a macrophage subpopulation in the lamina propria of the villi of the small intestine.

Specificity:

Mouse: Subpopulation of mature resident tissue macrophages.

Other species: not tested.

Selected references

Kraal, G., Janse, M.: Marginal metallophilic cells of the mouse spleen identified by a monoclonal antibody. *Immunology* **58**, 665-669 (1986).

For *in vitro* research only. Caution: this product contains Kathon, a poisonous and hazardous substance.