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Monoclonal Antibody To Mouse Monocytes / Macrophages

Marker With Broad Specificity

Monoclonal antibody MOMA-2 is a useful marker for the broad detection of monocytes and macrophages in all mouse strains. In combination with the anti F4/80 marker BM8 (product T-2006) it allows a precise characterisation of tissue fixed macrophages in various organs. The antibody stains a mature macrophage subset, monocytes and a few precursors in bone marrow. Dendritic cells show low to intermediate expression. The staining shows close correlation with expression of acid phosphatase in tissue sections. MOMA-2 is predominantly expressed in the cytoplasm, but is also present on the cell surface.

Product number: T-2007

Clone: MOMA-2

Lot: 17PO0503

TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Host species, subclass:	Rat IgG2b
Quantity:	200µg
Format:	Affinity purified, 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 0.1% sodium azide 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); has been described to work in FACS (after permeabilisation).
	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.
	Please see **www.bma.ch** for protocols and general information.
Immunogen:	Mouse lymph node stroma.
Antigen, epitope:	The antigen is a (glyco-)protein of 140kDa m.w. which is located within the cytoplasm and on the cell surface. The epitope has not been further characterized.

Antigen distribution:

Isolated cells: In the cytospin preparation of thioglycollate stimulated peritoneal exudate cells MOMA-2 detects an antigen as distinct cytoplasmic spots. MOMA-2 detects monocytes of the peripheral blood and a subpopulation of bone marrow cells

Tissue sections MOMA-2 detects typical tissue macrophages as does the anti F4/80-specific clone BM8 (pan macrophage marker). However, different staining patterns are visible as shown below. The most predominant difference can be observed in T-cell areas and follicles of peripheral lymphoid organs where the anti F4/80 clone BM8 is negative.

Comparison of different mature macrophage markers

Product number	**MOMA-2** T-2007	**BM8 (anti F4/80)** T-2006	**ER-BMDM 1** T-2015
Monocytes	+	+	-
Kupffer cells	+	+	-
Langerhans cells	+/-	+	
Tingible body macrophages	+	-	
Interdigitating cells	+/-	-	+
Dendritic cells	+/-	-	+
Microglial cells	-		-
Marginal zone macrophages	-	-	
Marginal metallophilic cells	-	-	-
Pneumocytes type II			+
Alveolar lavage cells		66%	26%
Resident peritoneal cells (PCs)		51%	34%
Thioglycollate elicited PCs time after injection: 4hours time after injection: 8 hours		 81% 28%	 79% 15%
Bone Marrow (BM) cells	14%	37%	5%
BM cells after 7 days with M-CSF	30%	96%	91%

Kraal et al. (1987) modified and P.J.M. Leenen personal communication

Specificity:

Mouse: monocytes and macrophages.

Other species: not tested.

Selected references

BREEL, M., MEBIUS, R.E., KRAAL,G.: Dendritic cells of the mouse recognized by two monoclonal antibodies. Eur. J. Immunol.: 17, 1555 - 1559 (1987).

KRAAL, G., REP, M., JANSE, M.: Macrophages in T and B Cell Compartments and Other Tissue Macrophages Recognized by Monoclonal Antibody MOMA-2; An Immunohistochemical Study. Scand. J. Immunol.: 26, 653 - 661 (1987).

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