
Monoclonal Antibody To Rat Macrophages

Marginal Zone Metallophils

Monoclonal antibody TRPM-3 is a specific cell surface marker useful for the identification of tissue fixed rat macrophages and macrophage subpopulations. It is particularly suitable for phenotyping macrophages of lymphoid organs, where it reacts with marginal zone macrophages and with marginal metallophils. It is also an interesting marker for studying autoimmune diseased tissues. The antibody shows a staining pattern comparable to the one obtained with ED3 (product T-3013)

Product Number:	T-3012 (Lot 02PO9104)
Clone:	TRPM-3
Host species, isotype:	Mouse IgG2a
Quantity:	100µg
Format:	Affinity purified, lyophilized
	Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 10mg/ml bovine serum albumin (BSA) as a stabilizer and 0.01% thimerosal 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: 0.25-0.5µg/ml (1:400 - 1:800) when using an ABC amplification system. Paraffin sections: does not react on routinely processed paraffin sections. Optimal dilutions should be determined by the end user. Suggested positive control: Rat spleen. Please see www.bma.ch for protocols and general information.
Immunogen:	Peritoneal macrophages
Antigen, epitope:	TRPM-3 recognises an epitope of a membrane protein which is associated with a receptor for glycoconjugates (sialoadhesin).
Antigen distribution:	Isolated cells: TRPM-3 is negative with monocytes and granulocytes.

Tissue sections: TRPM-3 stains marginal zone macrophages and marginal metallophils of the spleen strongly.

It rarely reacts with cordal macrophages in the red pulp and interdigitating cells in the periarterial lymphatic sheath of the spleen. In lymph nodes, only sinus macrophages express the antigen. Moreover, it is expressed on macrophages in the synovial membrane, mucosa and submucosa of the gastrointestinal tract, twisted spindle-shaped macrophages of the omentum and on macrophages in the dermis and subcutaneous tissue. It is absent from macrophages in the thymus, Peyer's patches and from Langerhans cells in the skin.

Specificity:

Rat: macrophages

Other species: negative in human, mouse, hamster, guinea-pig, goat, rabbit.

Selected references

TAKEYA, M., L. Hsiao, K. Takahashi: A new monoclonal antibody, TRPM-3, binds specifically to certain rat macrophage populations: Immunohistochemical and immunoelectron microscopic analysis. *J Leukocyte Biol* 41: 187-195 (1987)

T. KATO, M. Takeya, K. Takagi, K. Takahashi: Chemical induced Transplantable malignant fibrous histiocytoma of the rat. *Lab Invest* 62: 635-645 (1990)

S. IZUMI, M. Takeya, K. Takagi, K. Takahashi. Ontogenic development of synovial A cells in fetal and neonatal rat knee joints. *Cell Tis Res* 262: 1-8 (1990)

Y. YAMAGUCHI et al. Effect of Cyclosporin on Distribution of macrophage subpopulations in rat hepatic allograft. *Dig Disease and Sci.* 38: 619-625 (1993)

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