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Monoclonal Antibody To Human CD163

Haemoglobin-Haptoglobin Receptor, Scavenger Receptor

Monoclonal antibody RM 3/1 recognizes a membrane glycoprotein on human monocytes and macrophages which is expressed in intermediate and late inflammatory stages. CD163 is a scavenger receptor for the haemoglobin-haptoglobin complex, and is upregulated by glucocorticoids and IL-10. The extracellular portion of the receptor is regularly shed and can be found in the circulation (see also our product S-1015, sCD163 ELISA). An important function of CD163 seems to be in the adhesion of monocytes to activated endothelial cells. CD163-positive cells include skin histiocytes, Kupffer cells, spleen macrophages of the red pulp, and some thymus macrophages. The antigen is also found abundantly in human term placenta, and regularly in acute and chronic inflammatory lesions.

This antibody was produced serum-free, without fetal calf serum.

TECHNICAL AND ANALYTICAL CHARACTERISTICS

Product Number:	T-1013 (Lot 08PO1424)
Clone:	RM 3/1
Host species, isotype:	Mouse IgG1
Quantity:	200µg
Format:	Affinity purified from cell culture supernatant, 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% (v/v) Kathon™ CG as a preservative.
Stability:	Original vial: 1 year at 4° - 8°C from date of purchase. Stock solution and aliquots thereof: 1 year at -20°C. Avoid freeze-thaw cycles.
Applications:	Tested for immunohistochemistry (IHC); has been described to work in FACS and Western blots. **Approximate working dilution for IHC:** Frozen sections: 4µg/ml (1:100) Paraffin sections: does not react on routinely processed paraffin sections Optimal dilutions should be determined by the end user. Suggested positive control: Human placenta Please see **www.bma.ch** for protocols and general information.
Immunogen:	Human monocytes
Protein database:	human-Q86VB7

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Antigen, epitope:	The antigen is CD163, the epitope has not been further characterized.
Antigen distribution:	**Isolated cells:** Monocytes, particularly after dexamethasone treatment or after 2-5 days in culture. Does not react with lymphocytes, granulocytes or platelets.
	Tissue sections: Positive staining can be observed in the skin (histiocytes), gut, Kupffer cells, few alveolar macrophages, a major population of macrophages in the placenta, varying degrees of macrophages in inflamed tissues, including tumorous tissue depending on the inflammatory stage. Red pulp, but not white pulp macrophages of the spleen, and cortical macrophages of the thymus are detected. Macrophages in the synovialis of patients with rheumatoid arthritis. In alveolar macrophages and in Kupffer cells a double staining can be observed with monoclonal antibody 25F9 (product T-1016) which is not the case in other tissues.
Specificity:	**Human:** monocytes and macrophages
	Other: positive in monkey; negative in pig, rabbit and guinea pig

Selected references

Zwadlo, G. et al.: A monoclonal antibody to a novel differentiation antigen on human macrophages associated with the down-regulatory phase of the inflammatory process. Exp.Cell Biol **55**: 295-304 (1987)

Zwadlo-Klarwasser, G. et al.: Glucocorticoid-induced appearence of the macrophage subtype RM 3/1 in peripheral blood of man. Int Arch Allergy Appl. Immunol **91**: 175-180 (1990)

Högger, P. et al.: J. Immunology **161**: 1883-1890 (1998).

For in vitro research only. This product contains Kathon™ CG as a preservative.

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