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**Biotinylated Monoclonal Antibody To Human MRP14
S100A9, Calgranulin B - Marker For Inflammatory Leukocytes**

Monoclonal antibody S36.48 identifies the Ca²⁺-binding 14kD subunit of the inflammatory L-1 protein complex, also called S100A9 or Calgranulin B. It is useful for the characterization of circulating granulocytes or inflammatory infiltrates of the myelo-monocytic lineage which express MRP14 differently depending on the inflammatory status of the disease.

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

Product number: T-1027

Clone: S36.48

Lot: 06PB1712

TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Host species, isotype: Mouse IgG1

Quantity: 100µg

Format: Affinity purified from cell culture supernatant, biotinylated, lyophilized.
Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/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
Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.

Applications: Each lot of this antibody has been tested and validated for immunohistochemistry (IHC) and ELISA; has also been described to work in FACS and dot blots.
Approximate working dilution for IHC:
Frozen sections: 1µg/ml (1:200)
Paraffin sections: 2µg/ml (1:100); Proteinase K pretreatment for antigen retrieval is recommended.
Optimal dilutions should be determined by the end user.
Suggested positive control: Human tonsil.
Please see www.bma.ch for protocols and general information.

Immunogen: Cultured human monocytes.

Antigen, epitope: The antigen is MRP14, the epitope is suspected in the central region of the peptide.

Antigen distribution:	Isolated cells: The antigen is found in granulocytes and monocytes. It is absent from all other blood cells. In cultured monocytes, maximum MRP14 expression is found after 3 - 4 days. Myeloid leukaemic cells have been found to be positive as well.
Tissue sections:	MRP14 is found in a distinct subpopulation of inflammatory perivascular infiltrates of the myelo-monocytic lineage. Macrophages synthesise MRP14 increasingly during the early stages of inflammation. A high MRP14 (and low MRP8) expression by macrophages was reported in granulomatous diseases such as tuberculosis and sarcoidis. In non-granulomatous chronic inflammatory diseases like chronic rheumatoid arthritis, MRP8 and MRP14 positive cells consist of different subpopulations. During early inflammation endothelial cells are also positive with MRP8/14 determined by antibody 27E10 (product T-1023).
Specificity:	Human: MRP14, granulocytes, stimulated monocytes and macrophages. Other: The antibody reacts with bovine spleen. It does not react with swine tissues.

Selected references

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- Teigelkamp, S., et al.: Calcium dependent Complex Assembly of the Myeloid Differentiation Proteins MRP-8 and MRP-14. *J. Biological Chem.*: **266**, (20), 13462 - 13467, (1991).
- Sorg, C.: *Macrophages in Inflammation*. Regensberg & Biermann. ISBN 3-924469-23-7: 23-35 (1988).

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