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Biotinylated Monoclonal Antibody To Human MRP8 S100A8, Calgranulin A - Subpopulation Of Inflammatory Leukocytes

Monoclonal antibody 8-5C2 identifies MRP8 (also named S100A8 or Calgranulin A), the Ca^{2+} -binding light subunit of the inflammatory L-1 protein complex. MRP8 forms Ca^{2+} dependent dimers or complexes with MRP14 (S100A9, Calgranulin B). It also forms disulfide-linked homodimers under the influence of hypochlorite, a process thought to abrogate the chemotactic property of MRP8. The antibody is useful in various immunological techniques. Histological and serological data indicate that MRP8 is associated with chronic stages of inflammatory diseases.

Product Number:	T-1031
Clone:	8-5C2
Host species, isotype:	Mouse IgG1
Quantity:	100 μ g
Format:	Affinity purified, biotinylated, 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) and ELISA; has been described to work in dot blots. Approximate working dilution for IHC: Frozen sections: 2 μ g/ml (1:100) Paraffin sections: 5 - 10 μ g/ml (1:20 - 1:50); no pretreatment for antigen retrieval necessary; microwave treatment in 0.01M citrate pH 6.0 may enhance the reactivity. Optimal dilutions should be determined by the end user. Suggested positive control: Human tonsil.
Immunogen:	Cultured human monocytes.
Antigen, epitope:	The antigen is MRP8, the epitope is suspected in the central portion of the peptide.



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Antigen distribution:

Isolated cells: The antigen is found in granulocytes and monocytes but not in other blood cells. In cultured monocytes, maximum MRP8 expression is found after 3 - 4 days. Myeloid leukaemia stains positively.

Tissue sections: MRP8 is found in a distinct subpopulation of inflammatory perivascular infiltrates of the myelo-monocytic lineage. Macrophages synthesise MRP8 increasingly during the late stages of inflammation. A low MRP8 (and high MRP-14) expression by macrophages was also reported in granulomatous diseases such as tuberculosis and sarcoidosis. In non-granulomatous chronic inflammatory diseases such as chronic rheumatoid arthritis or chronic rejection after allograft transplantation, MRP8 and MRP14 positive cells consist of different subpopulations.

Specificity:

Human: MRP8 in stimulated monocytes and macrophages in late phase or chronic inflammation.

Other: The antibody does not react with rat tissues.

Selected references

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Sorg, C.: *Macrophages in Inflammation*. Regensberg & Biermann. ISBN 3-924469-23-7: 23-35 (1988).

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