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Monoclonal Antibody To Human (Rat) MRP8 (S100A8) Marker For A Subpopulation Of Inflammatory Leukocytes

Monoclonal antibody S13.67 identifies MRP8 (S100A8 or Calgranulin A), the Ca²⁺-binding light subunit of calprotectin. MRP8 forms Ca²⁺ dependent 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. This clone S13.67 also stains cells in rat spleen, indicating significant cross reactivity with the corresponding rat MRP8.

Product Number:	T-1032
Clone:	S13.67
Host species, isotype:	Mouse IgG1
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) and ELISA; has been described to work in FACS and dot blots. Approximate working dilution for IHC: Frozen sections: 1-2µg/ml (1:100 - 1:200) Paraffin sections: 4µg/ml (1:50); pretreatment not necessary. 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 N- or C-terminal domain.



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Antigen distribution:

Isolated cells: The antigen is found in granulocytes and monocytes. It is absent from other blood cells. In cultured monocytes, maximum MRP8 levels occur after 3 - 4 days.

Tissue sections: MRP8 is found in a distinct subpopulation of inflammatory perivascular infiltrates of the myelo-monocytic lineage. Macrophages increasingly synthesise MRP8 during the late stages of inflammation. A low MRP8 (and high MRP14) expression by macrophages was also reported in granulomatous diseases such as tuberculosis and sarcoidis. In non-granulomatous chronic inflammatory diseases such as chronic rheumatoid arthritis, MRP8 and MRP14 positive cells consist of different subpopulations. During early inflammation endothelial cells are also positive with MRP8 / MRP14.

Specificity:

Human: granulocytes, stimulated monocytes and macrophages.

Other: rat; pig (TNF-alpha/IL-1 alpha induced inflammation of the skin).

Selected references

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