

## Product datasheet for **BM4026B**

### **S100A9 Mouse Monoclonal Antibody [Clone ID: S36.48]**

#### **Product data:**

Product Type:	Primary Antibodies
Clone Name:	S36.48
Applications:	ELISA, FC, IHC
Recommended Dilution:	<b>ELISA.</b> <b>Immunohistochemistry on Frozen Sections:</b> 1 µg/ml (1/200). <b>Immunohistochemistry on Paraffin Sections:</b> 2 µg/ml (1/100). Proteinase K pretreatment for antigen retrieval is recommended. <b>Suggested Positive Control:</b> Human tonsil. Also Suitable for <b>Dot Blots</b> and <b>FACS</b> .
Reactivity:	Bovine, Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Cultured Human monocytes.



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<b>Specificity:</b>	<p>MRP14, granulocytes, stimulated monocytes and macrophages.</p> <p>Monoclonal antibody BM4026B identifies the Ca<sup>2+</sup>-binding 14 kD 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.</p> <p><b>Antigen Distribution</b></p> <p><b>Isolated cells:</b> 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.</p> <p><b>Tissue Sections:</b> 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 Cat.-No BM4025).</p>
<b>Formulation:</b>	<p>PBS, pH 7.2</p> <p>Label: Biotin</p> <p>State: Lyophilized purified IgG fraction</p> <p>Stabilizer: 5 mg/ml BSA</p> <p>Preservative: 0.05% (v/v) Kathon CG</p>
<b>Reconstitution Method:</b>	Restore by adding 0.5 ml distilled water.
<b>Concentration:</b>	0.2 mg/ml (after reconstitution)
<b>Purification:</b>	Affinity Chromatography
<b>Conjugation:</b>	Biotin
<b>Storage:</b>	<p>Store lyophilized at 2-8°C for 6 months or at -20°C long term.</p> <p>After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term.</p> <p>Avoid repeated freezing and thawing.</p>
<b>Stability:</b>	Shelf life: one year from despatch.
<b>Gene Name:</b>	S100 calcium binding protein A9
<b>Database Link:</b>	<a href="#">Entrez Gene 6280 Human P06702</a>

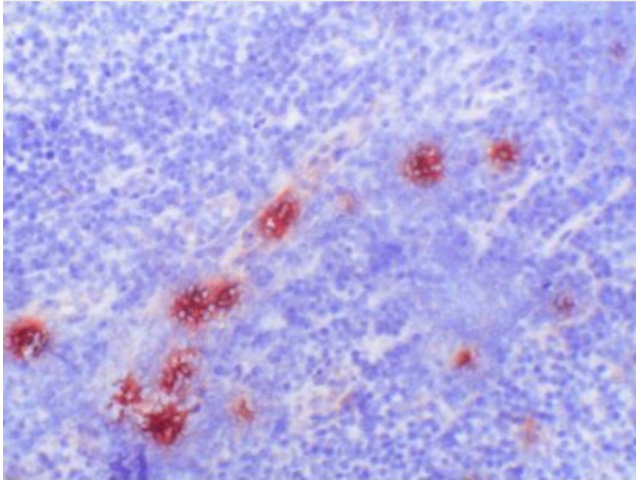
**Background:**

S100A9 is a member of the S100 family of proteins. S100A9, together with S100A8 forms a heterodimeric protein complex, Calprotectin, which is a major calcium- and zinc-binding protein in the cytosol of neutrophils, monocytes, and keratinocytes. Complexes of S100A8 and S100A9 are the physiologically relevant forms of these proteins.

S100A9 may function in the inhibition of casein kinase and altered expression of this protein is associated with the disease cystic fibrosis. Its expression and potential cytokine-like function in inflammation and in cancer suggest that S100A8/A9 may play a key role in inflammation-associated cancer.

**Synonyms:**

S100-A9, CAGB, MRP-14

**Product images:**

Human tonsil Frozen section stained with Biotin conjugated S100A9 / Calgranulin-B / MRP14 Antibody