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Product datasheet for BM4027X

S100A9 Mouse Monoclonal Antibody [Clone ID: S32.2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	S32.2
Applications:	ELISA, FC, IHC
Recommended Dilution:	**ELISA.** **Immunohistochemistry on Frozen sections:** 0.5 µg/ml (1/400). **Immunohistochemistry on Paraffin Sections:** 1 µg/ml (1/200), pre-treatment for antigen retrieval not required. *Positive Control:* Human tonsil. Has been described to work in**FACS** and **Dot blots.**
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Cultured human monocytes

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Specificity:	Monoclonal antibody S32.2 identifies the Ca2+ -binding 14kD subunit of the inflammatory L-1 protein complex, also called S100A9 or Calgranulin B. The antigen is MRP14, the epitope is suspected in the carboxyterminal portion of the peptide. The antibody is useful for the characterization of circulating granulocytes or inflammatory infiltrates of the myelo-monocytic lineage which express MRP14/S100A9 differently depending on the inflammatory status of the disease. **Antigen Distribution on Isolated Cells:** The antigen is found in granulocytes, stimulated monocytes and macrophages. It is absent from all other blood cells. In cultured monocytes, maximum MRP14 expression is found after 3-4 days. Myeloid leukaemia cells have been found to be positive as well. **Antigen Distribution on Tissue Sections:** MRP14/S100A9 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 (*Cat.-No.* BM4025).
Formulation:	Stock Solution contains PBS, pH 7.2 State: Purified State: Lyophilized purified IgG fraction (Serum-Free, Without fetal calf serum). Stabilizer: 5 mg/ml BSA Preservative: 0.05% Kathon
Reconstitution Method:	Restore with 0.5 ml distilled water.
Concentration:	0.2 mg/ml (after reconstitution)
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 month or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	S100 calcium binding protein A9
Database Link:	Entrez Gene 6280 Human P06702

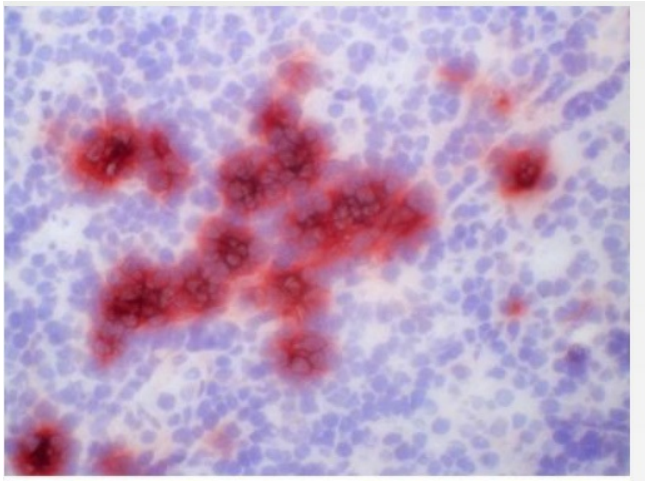
Background: S100A9 is a member of the S100 family of proteins. S100A9, together with S100A8 forms a heterodimeric protein complex, Calprotectin, which is a major calcium- and zinc-binding protein in the cytosol of neutrophils, monocytes, and keratinocytes. Complexes of S100A8 and S100A9 are the physiologically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

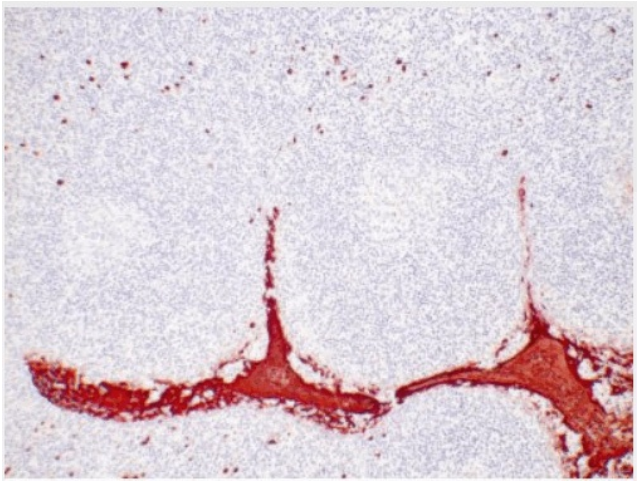
Note: Protocol: **Protocol with frozen, ice-cold acetone-fixed sections:**
The whole procedure is performed at room temperature
1. Wash in PBS
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS
11. Counterstain with Mayer's hemalum.

Protocol with formalin-fixed, paraffin-embedded sections:
The whole procedure is performed at room temperature
1. Deparaffinize and rehydrate tissue section
2. Block endogenous peroxidase
3. Wash in PBS
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber
6. Wash in PBS
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
8. Wash in PBS
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min. 10. Wash in PBS
11. Counterstain with Mayer's hemalum.

Product images:



Immunohistochemical staining on Human Tonsil Frozen Sections using S100A9 antibody clone S32.2



Immunohistochemical staining on Human Tonsil Paraffin Sections using S100A9 antibody clone S32.2