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Product datasheet for SM066P

Siglec1 Rat Monoclonal Antibody [Clone ID: MOMA-1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	MOMA-1
Applications:	FC, IHC
Recommended Dilution:	**Flow Cytometry.** **Immunohistochemistry on Frozen Sections:** 2 µg/ml (1/200). *Fixation:* Acetone. ***Recommended Positive Control:*** Mouse spleen. Does not react on routinely processed Paraffin Sections.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2a
Clonality:	Monoclonal
Immunogen:	Mouse lymph node tissue.

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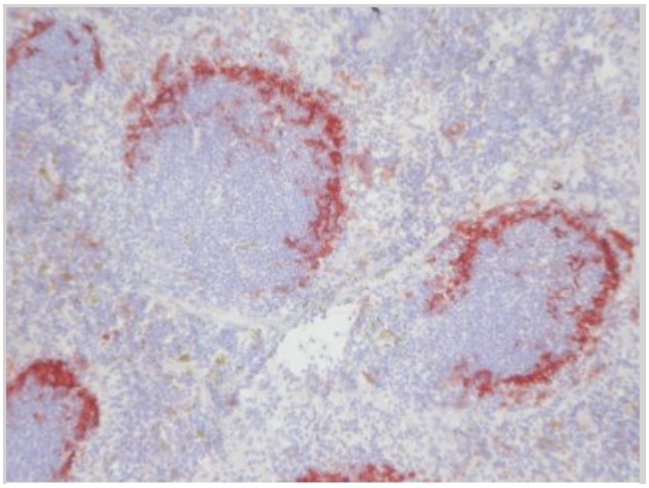
Specificity:	Clone MOMA-1 is a useful marker for the identification of Macrophage subpopulations in various organs, mostly characterised by a high level of non-specific esterase expression. The staining is particularly noteworthy with the metallophilic macrophages adjacent to the marginal zone of the spleen. The marker is also very suitable for differentiation of non-metallophilic marginal zone Macrophages as detected by ER-TR9 (*Cat.-No* BM4011). In addition , MOMA-1 detects Macrophages at inflammatory sites and is positive with Kupffer cells. The antigen is differentially induced in in vitro derived Macrophages depending on the colony-stimulating factor applied (IL-3 > M-CSF > GM-CSF). The antigen detected by MOMA-1 is CD169, also known as Sialoadhesin. **Antigen Distribution** **Isolated Cells:** No reactivity of MOMA-1 was found with dendritic cells, peritoneal resident Macrophages, peritoneal exudate cells, bone marrow or blood cells. **Tissue Sections:** Distinct Macrophage subpopulations of lymphoid organs express the antigen. In the spleen, they are localized at the marginal sinus forming a ring around the periarteriolar lymphocyte sheath and follicular areas at the inner side of marginal zones. In lymph nodes, they are localized in the sinusoids and medullary cords, but not within follicular areas or paracortex. In Peyer's patches they are localized in the interfollicular areas at the serosal side. Kupffer cells in the liver can be clearly stained by MOMA-1. No MOMA-1-positive macrophages were found in the thymus, brain, kidney, liver, skin or heart. In non-lymphoid organs, the antigen is only found on a Macrophage subpopulation in the lamina propria of the villi of the small intestine.
Formulation:	Stock solutions contains PBS, pH 7.2 with 10 mg/ml BSA as a stabilizer and 0.01% Thimerosal as a preservative State: Purified State: Lyophilized purified IgG fraction
Reconstitution Method:	Restore by adding 0.5 ml distilled water (= 0.4 mg/ml Stock Solution).
Concentration:	0.4 mg/ml (after reconstitution)
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store lyophilized at 2-8°C for 6 months 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:	sialic acid binding Ig-like lectin 1, sialoadhesin
Database Link:	Entrez Gene 20612 Mouse Q62230

Background: Metallophilic macrophages are a subpopulation of mature resident tissue macrophages. They show high non specific esterase activity and can be distinguished from splenic marginal zone macrophages by antibody staining and the lack of FITC-Ficoll uptake.

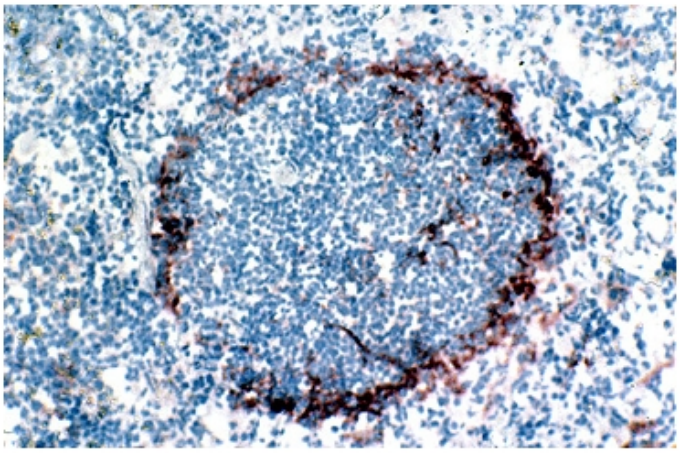
Synonyms: Sialoadhesin, Siglec-1

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 rat IgG (H+L) minimal-cross reaction to mouse) 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:



Staining of mouse spleen frozen section using MOMA-1



Staining of mouse spleen using MOMA-1. Note the typical staining of metallophilic macrophages in the marginal zone.