Datasheet

Mouse mAb to **MRP14/S100A9/calgranulin B**
Clone **47-8D3**
Isotype **IgG1-κ**

Source

A BALB/c mouse was immunized with human peripheral blood monocyte components derived by affinity chromatography with Sepharose 4B coupled to rabbit monocyte antibodies.
Fusion partner: NS-1.

Specifications

47-8D3 reacts with macrophages and detects the well-known leukocyte L1, cystic fibrosis antigen. Detecting a single protein band of 14 kDa in Western blots of lysates of human monocytes and granulocytes, the antigen was identified as the calcium-binding protein MRP14, which is a member of the S100 family involved a.o. in regulating the cell cycle. MRP14 is also implicated in the abnormal differentiation of myeloid cells in the stroma of cancer. It is further found on squamous mucosal epithelia. When associated with MRP8 it forms the heterodimer calprotectin.

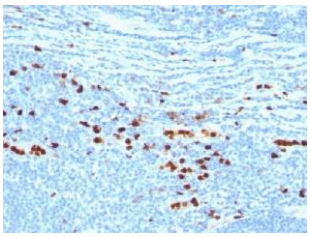

Figure 1: Human tonsil stained with 47-8D3 (paraffin)

Species reactivity

Positive: baboon, cat, cow, dog, goat, guinea pig, human, horse, monkey, pig, rabbit, rat.

Applications

MRP14 is widely used for identifying cystic fibrosis and the phenotypical characterization of macrophages and myelomonocytic cells in situ.

Flow cytometry	Frozen sections	Immunofluorescence	Paraffin sections	Western blot
+	+	+	Citrate/trypsin	+

Format

Produced in tissue culture, contains no host Ig. Antibodies are affinity purified and presented in PBS with 0,02 % sodium azide.
Stored at 4°C- 8°C, shelf life is at least 24 months after purchase.

Dilution advice

- Flow Cytometry (1-2 µg/million cells in 0,1 ml, fix cells in 4% PFA for 10 min, at 4°C, permeabilize with 0,2% saponin or digitonin for 15 min, at 4°C).
- Immunoblotting (1-2 µg/ml).
- Immunofluorescence (1-2 µg/ml).
- Immunohistology (1-2 µg/ml for 30 min at RT; staining of formalin-fixed tissues requires boiling tissue sections in 10mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 min. or digestion of sections with trypsin at 1mg/ml PBS, 15 min at RT).

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Positive control

Monocytes, macrophages, granulocytes.

References

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- Facchetti F. et al., *Am. J. Clin. Pathol.* **92**: 42-50 (1989).
- Bardadin KA. et al., *J. Pathol.* **164**: 253-259 (1991).
- Goebeler M. et al., *J. Leukocyte Biol.* **55**: 259-261 (1994).