

Product datasheet MON3094

MONOSAN[®]

Mouse anti-S100A8/A9, clone 27E10 (Monoclonal)

Clone no. 27E10

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Product name	Mouse anti-S100A8/A9, clone 27E10 (Monoclonal)
Host	Mouse
Applications	IHC-fr,FC,ELISA,IF,IP,WB
Species reactivity	human, rhesus monkey
Conjugate	-
Immunogen	Unknown or proprietary to MONOSAN and/or its suppliers
Isotype	IgG1
Clonality	Monoclonal
Clone number	27E10
Size	1 ml
Concentration	100 ug/ ml
Format	-
Storage buffer	PBS with 0.1% BSA and 0.02% sodium azide
Storage until expiry date	2-8°C

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES

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Additional info

The monoclonal antibody 27E10 recognizes an epitope specific for the S100A8/A9 heterocomplex that is not exposed on the individual subunits S100A8 (MRP8, calgranulin-A) or S100A9 (MRP14, calgranulin-B). The calcium-binding migration inhibitory factor-related proteins, MRP-8 (S100A8) and MRP-14 (S100A9) belong to the S100 protein family. The expression of these proteins is largely confined to the cytosol of neutrophils and monocytes. The complex formation of these proteins is a calcium-dependent process. The S100A8/A9 heterocomplex, also called MRP-8/MRP-14 complex or calprotectin, comprises 60% of the cytoplasmic protein fraction of circulating polymorphonuclear granulocytes and is also found in monocytes, macrophages and ileal tissue eosinophils. Peripheral blood monocytes carry the antigen extra- and intracellularly, neutrophils only intracellularly. The S100A8/A9 complex has antibacterial, antifungal, immunomodulating and antiproliferative effects. Besides this it is a potent chemotactic factor for neutrophils. Plasma concentrations are elevated in diseases associated with increased neutrophil activity, like inflammatory bowel disease. Granulocytes terminate their existence after transmigration through the intestinal wall. Therefore calprotectin is also detectable in feces. Elevated levels of calprotectin have been observed in body fluids such as plasma, saliva, gingival crevicular fluid, stools, and synovial fluid during infection and inflammatory conditions.

The monoclonal antibody 27E10 can be used for early detection of inflammatory macrophages, for the characterization of tumorous tissues and the monitoring of peripheral blood cell cultures. The antibody 27E10 does not react with lymphocytes or platelets.

References

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2. Hessian, P et al Eur J Biochem 2001, 268: 353
3. Kuhn; A et al. Br J Dermatol 2002; 146: 801
4. Champaiboon C et al. J Biol Chem 2009; 284: 7078
5. Williams S et al. Thesis 2009

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