

Hycult biotechnology

## Calprotectin/S100A8/A9, Clone 27E10, Human mAb

<b>Catalog No.</b>	HM2156	<b>Quantity:</b>	100 µg
<b>Description:</b>	<p>The monoclonal antibody 27E10 is a unique antibody recognizing an epitope on the S100A8/A9 heterocomplex that is not exposed on the individual subunits S100A8 (MRP8) or S100A9 (MRP14). 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 and 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. Granulocytes terminate their existence after transmigration through the intestinal wall. Therefore calprotectin is also detectable in faeces. The monoclonal antibody 27E10 can be used for early detection of inflammatory macrophages, for the characterisation of tumorous tissues and the monitoring of peripheral blood cell cultures. The antibody 27E10 does not react with lymphocytes or platelets. 27E10 shows cross-reaction with a subpopulation of macrophages of rhesus monkey.</p>		
<b>Concentration:</b>	100 µg/ml		
<b>Specificity:</b>	Human Calprotectin		
<b>Host:</b>	Mouse		
<b>Isotype:</b>	IgG <sub>1</sub>		
<b>Clone:</b>	27E10		
<b>Formulation:</b>	1 ml (100 µg/ml) 0.2 µm filtered antibody solution in PBS, containing 0.02% sodium azide and 0.1% bovine serum albumin. Precaution: Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.		
<b>Cross-Reactivity:</b>	Does not react with lymphocytes or platelets. Does cross-react with a subpopulation of macrophages of rhesus monkey.		
<b>Applications</b>	<p>The monoclonal antibody 27E10 can be used for immuno assays both as coating and as detector, Western blotting, immuno precipitation and flow cytometry. Furthermore the antibody 27E10 is useful for immunohistology on frozen and paraffin sections. For immunohistology, flow cytometry and Western blotting dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:10.</p>		

### Storage & Stability:



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stable for one year.

### References:

1. Zwadlo, G et al; A monoclonal antibody to a subset of human monocytes found only in the peripheral blood and inflammatory tissues. *J Immunol* 1986, *137*: 512
2. Kuhn, A et al; Upregulation of epidermal surface molecule expression in primary and ultraviolet-induced lesions of lupus erythematosus tumidus. *Br J Dermatol* 2002, *146*: 801
3. Hessian, P et al; The heterodimeric complex of MRP-8 (S100A8) and MRP-14 (S100A9)-Antibody recognition, epitope definition and the implications for structure. *Eur J Biochem* 2001, *268*: 353

### Also available:

HM2134: Monoclonal antibody against Human TfR1, clone 3B8 2A1  
HM2135: Monoclonal antibody against Human TfR2, clone 9F8 1C11  
HM2158: Monoclonal antibody against Human Macrophages, clone 25F9  
HP9034: Polyclonal antibody against Human Lactoferrin  
HP9035: Polyclonal antibody against Human Lysozyme

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