Datasheet for ABIN2192017

anti-Calprotectin antibody (Biotin)

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Overview

Quantity:	50 µg
Target:	Calprotectin (S100A8/A9)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Calprotectin antibody is conjugated to Biotin
Application:	Western Blotting (WB), Flow Cytometry (FACS), High Pressure Liquid Chromatography (HPLC)

Product Details

Clone:	27E10
Isotype:	IgG1
Cross-Reactivity (Details):	Cross reactivity: Mouse : No, Rhesus Monkey : Yes (subpopulation of macrophages)
Sterility:	0.2 µm filtered

Target Details

Target:	Calprotectin (S100A8/A9)
Alternative Name:	Calprotectin (S100A8/A9 Products)
Background:	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

Target Details

	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. Aliases S100A8/A9, MRP-8/MRP-14, calprotectin, calgranulin-A/calgranulin-B, L1-protein Immunogen Human blood monocytes
Pathways:	S100 Proteins

Application Details

Application Notes:	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 1:50. Positive Human granulocytes control Negative Platelets, lymphocytes, HL-60 cells control
Restrictions:	For Research Use only

Handling

Buffer:	PBS, containing 0.1 % bovine serum albumin and 0.02 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C Under recommended storage conditions, product is stable for

Handling

	one year.
Expiry Date:	12 months

Publications

Product cited in:

Kuhn, Sonntag, Sunderkötter, Lehmann, Vestweber, Ruzicka: "Upregulation of epidermal surface molecule expression in primary and ultraviolet-induced lesions of lupus erythematosus tumidus." in: **The British journal of dermatology**, Vol. 146, Issue 5, pp. 801-9, (2002) (PubMed).

Hessian, Fisher: "The heterodimeric complex of MRP-8 (S100A8) and MRP-14 (S100A9). Antibody recognition, epitope definition and the implications for structure." in: **European journal of biochemistry / FEBS**, Vol. 268, Issue 2, pp. 353-63, (2001) (PubMed).

Zwadlo, Schlegel, Sorg: "A monoclonal antibody to a subset of human monocytes found only in the peripheral blood and inflammatory tissues." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 137, Issue 2, pp. 512-8, (1986) (PubMed).