

TECHNICAL DATA SHEET

CyFlow™ CD43 Low Endotoxin Anti-Hu; Clone MEM-59

REF CU046978

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD43
Alternative Names	Leukosialin, sialophorin
Clone	MEM-59
Clonality	monoclonal
Format	Low Endotoxin
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
Immunogen	Human T lymphocytes

Specificity

The mouse monoclonal antibody MEM-59 recognizes neuraminidase-sensitive epitope on CD43 antigen, a 95-135 kDa type I transmembrane glycoprotein (mucin-type) which is involved in lymphocyte activation.

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CD43 is expressed by platelets and at high levels on the surface of all leukocytes; it is negative on resting B lymphocytes and erythrocytes.

Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunohistochemistry (paraffin-embedded sections)
- Functional assays

Storage Buffer

The reagent is provided in azide-free phosphate buffered saline (PBS) solution, pH $\approx$ 7.4; 0.2 μ m filter sterilized. Endotoxin level is less than 0.01 EU/ μ g of the protein, as determined by the LAL test.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD43 (leukosialin, sialophorin) is a transmembrane mucin-like protein with high negative charge, expressed on the surface of most hematopoietic cells. CD43 contributes to a repulsive barrier that interferes with cellular adhesion, however, in certain cases also promotes leukocyte aggregation. By interaction with actin-binding proteins ezrin and moesin, CD43 plays a regulatory role in remodeling T-cell morphology and regulates cell-cell interactions during lymphocyte traffic. CD43 signaling both enhances LFA-1 adhesiveness and counteracts LFA-1 induction via other receptors. Expression of CD43 causes induction of functionally active tumor suppressor p53 protein, but in case of p53 and ARF deficiency CD43 promotes tumour proliferation and viability. It appears to be an important modulator of leukocyte functions.

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Oncogene. 2008 Mar 13;27(12):1705-15. Epub 2007 Sep 24.

CD43 promotes cell growth and helps to evade FAS-mediated apoptosis in non-hematopoietic cancer cells lacking the tumor suppressors p53 or ARF.

Kadaja-Saarepuu L1, Laos S, Jääger K, Viil J, Balikova A, Lõoke M, Hansson GC, Maimets T.: CD43 promotes cell growth and helps to evade FAS-mediated apoptosis in non-hematopoietic cancer cells lacking the tumor suppressors p53 or ARF. Oncogene. 2008 Mar 13; 27(12):1705-15. < PMID: 17891181 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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