

TECHNICAL DATA SHEET

CyFlow™ CD43 FITC Anti-Hu; Clone MEM-59

REF BR081923

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	FITC
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
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

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 20 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (2 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

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.

References

- Stefanova I, Hilgert I, Angelisova P, Kristofova H, Horejsi V: Characterization of a 95 kDa human leucocyte sialoglycoprotein: its identity with CD43, gpL115, leukosialin and sialophorin. Folia Biol (Praha). 1988; 34(4):255-65. < PMID: 2467832 >
- Knapp W, Dorken B, Gilks W, Rieber EP, Schmidt RE, Stein H, von dem Borne AEGK (Eds): Leucocyte Typing IV. Oxford University Press, Oxford. 1989; 1-1820. < NLM ID: 8914679 >

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- Stefanova I, Hilgert I, Kristofova H, Brown R, Low MG, Horejsi V: Characterization of a broadly expressed human leucocyte surface antigen MEM-43 anchored in membrane through phosphatidylinositol. *Mol Immunol*. 1989 Feb; 26(2):153-61. < PMID: 2918859 >
- Doussis IA, Gatter KC, Mason DY: CD68 reactivity of non-macrophage derived tumours in cytological specimens. *J Clin Pathol*. 1993 Apr; 46(4):334-6. < PMID: 7684403 >
- Alvarado M, Klassen C, Cerny J, Horejsi V, Schmidt RE: MEM-59 monoclonal antibody detects a CD43 epitope involved in lymphocyte activation. *Eur J Immunol*. 1995 Apr; 25(4):1051-5. < PMID: 7537669 >
- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): *Leucocyte Typing VI*. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- Cermák L, Símová S, Pintzas A, Horejsí V, Andera L: Molecular mechanisms involved in CD43-mediated apoptosis of TF-1 cells: Roles of transcription Daxx expression, and adhesion molecules. *J Biol Chem*. 2002 Mar 8; 277(10):7955-61. < PMID: 11773067 >
- Kadaja L, Laos S, Maimets T: Overexpression of leukocyte marker CD43 causes activation of the tumor suppressor proteins p53 and ARF. *Oncogene*. 2004 Apr 1; 23(14):2523-30. < PMID: 14676827 >
- Filatov AV, Krotov GI, Zgoda VG, Volkov Y: Fluorescent immunoprecipitation analysis of cell surface proteins: a methodology compatible with mass-spectrometry. *J Immunol Methods*. 2007 Jan 30; 319(1-2):21-33. < PMID: 17098248 >
- Mody PD, Cannon JL, Bandukwala HS, Blaine KM, Schilling AB, Swier K, Sperling AI: Signaling through CD43 regulates CD4 T-cell trafficking. *Blood*. 2007 Oct 15; 110(8):2974-82. < PMID: 17638845 >
- Khunkaewla P, Schiller HB, Paster W, Leksa V, Cermák L, Anděra L, Hořejší V, Stockinger H: LFA-1-mediated leukocyte adhesion regulated by interaction of CD43 with LFA-1 and CD147. *Mol Immunol*. 2007 Nov 8; < PMID: 19203795 >
- Simova S, Klima M, Cermak L, Sourkova V, Andera L: Arf and Rho GAP adapter protein ARAP1 participates in the mobilization of TRAIL-R1/DR4 to the plasma membrane. *Apoptosis*. 2008 Mar; 13(3):423-36. < PMID: 18165900 >
- Kadaja-Saarepuu L, Laos S, Jääger K, Viil J, Balikova A, Lõoke M, Hansson GC, Maimets T

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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, Lööke 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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