



PB-220-T100

Monoclonal Antibody to CD43 Pacific Blue™ conjugated (100 tests)

Clone:	MEM-59
Isotype:	Mouse IgG1
Specificity:	<p>The antibody MEM-59 recognizes neuraminidase-sensitive epitope on CD43 (Leukosialin), a 95-135 kDa type I transmembrane glycoprotein (mucin-type) which is involved in lymphocyte activation. CD43 is expressed by platelets and at high levels on the surface of all leukocytes; it is negative on resting B lymphocytes and erythrocytes.</p> <p>HLDA IV; WS Code NL 604 HLDA V; WS Code AS S290</p>
Regulatory Status:	RUO
Immunogen:	Human T lymphocytes.
Species Reactivity:	Human
Preparation:	<p>The purified antibody is conjugated with Pacific Blue™ under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.</p>
Storage Buffer:	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
Storage / Stability:	Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not use after expiration date stamped on vial label.
Usage:	<p>The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension.</p> <p>The content of a vial (0.4 ml) is sufficient for 100 tests.</p>
Expiration:	See vial label
Lot Number:	See vial label
Background:	<p>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 tumour 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.</p>

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *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 nFeb;26(2):153-61.
- *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.
- *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
- *Kadaja-Saarepuu L, 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.* 2007 Sep 24
- *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.
- *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.
- *Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
- *Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
- *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.
- *Leukocyte Typing VI., Kishimoto T. et al. (Eds.), Garland Publishing Inc. (1997).
- *Cermak L, Simova S, Pintzas A, Horejsi 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.
- *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.
- *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.
- *Schatzmaier P, Supper V, Göschl L, Zwirzitz A, Eckerstorfer P, Ellmeier W, Huppa JB, Stockinger H: Rapid multiplex analysis of lipid raft components with single-cell resolution. *Sci Signal.* 2015 Sep 22;8(395):rs11

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.

This product is provided under an agreement between Molecular Probes, Inc. (a wholly owned subsidiary of Invitrogen Corporation), and Exbio Praha, a.s., and the manufacture, use, sale or import of this product may be subject to one or more U.S. patents, pending applications, and corresponding non-U.S. equivalents, owned by Molecular Probes, Inc. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product in research conducted by the buyer (whether the buyer is an academic or for-profit entity), including use in flow cytometry that does not utilize a bead based array, but excluding use in combination with microarrays or High Content Screening. The buyer cannot sell or otherwise transfer (a) this product (b) its components or (c) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for Commercial Purposes. Commercial Purposes means any activity by a party for consideration and may include, but is not limited to: (1) use of the product or its components in manufacturing; (2) use of the product or its components to provide a service, information, or data; (3) use of the product or its components for therapeutic, diagnostic or prophylactic purposes; or (4) resale of the product or its components, whether or not such product or its components are resold for use in research. For information on purchasing a license to this product for any other use, contact Molecular Probes, Inc., Business Development, 29851 Willow Creek Road, Eugene, OR 97402, USA, Tel: (541) 465-8300. Fax: (541) 335-0504.

For laboratory research only, not for drug, diagnostic or other use.

EXBIO Praha | Nad Safinou II 341 | 252 50 Vestec u Prahy | Czech Republic
Tel: +420 261 090 666 | Fax: +420 261 090 660 | orders@exbio.cz | www.exbio.cz