



Antibodies

T4-662-T025

Monoclonal Antibody to CD33 APC-Cy™7 conjugated (25 tests)

Clone:	WM53
Isotype:	Mouse IgG1
Specificity:	The mouse monoclonal antibody WM53 reacts with CD33, a 67 kDa type I transmembrane glycoprotein (immunoglobulin superfamily) expressed on myeloid progenitors, monocytes, granulocytes, dendritic cells and mast cells; it is absent on platelets, lymphocytes, erythrocytes and hematopoietic stem cells. HLDA IV; WS Code M-505
Regulatory Status:	RUO
Immunogen:	Human AML cells
Species Reactivity:	Human, Non-Human Primates
Preparation:	The purified antibody is conjugated with tandem dye APC-Cy™7 under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
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:	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 ⁶ cells in a suspension. The content of a vial (0.1 ml) is sufficient for 25 tests.
Expiration:	See vial label
Lot Number:	See vial label
Background:	CD33 is a transmembrane protein of the sialic acid-binding immunoglobulin-like lectin (Siglec) family. It belongs to the immunoreceptor tyrosine-based inhibitory motif (ITIM)-containing molecules able of recruiting protein tyrosine phosphatases SHP-1 and SHP-2 to signal assemblies; these ITIMs are also used for ubiquitin-mediated removal of the receptor from the cell surface. CD33 is expressed on cells of myelomonocytic lineage, binds sialic acid residues in N- and O-glycans on cell surfaces, and is a therapeutic target for acute myeloid leukemia.

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

**Antibodies****References:**

- *Favaloro EJ, Bradstock KF, Kabral A, Grimsley P, Berndt MC: Characterization of monoclonal antibodies to the human myeloid-differentiation antigen, 'gp67' (CD-33). *Dis Markers*. 1987 Dec;5(4):215-25.
- *Favaloro EJ, Bradstock KF, Kabral A, Grimsley P, Zowtyj H, Zola H: Further characterization of human myeloid antigens (gp160,95; gp150; gp67): investigation of epitopic heterogeneity and non-haemopoietic distribution using panels of monoclonal antibodies belonging to CD-11b, CD-13 and CD-33. *Br J Haematol*. 1988 Jun;69(2):163-71.
- *Bradstock KF, Kirk J, Grimsley PG, Kabral A, Hughes WG: Unusual immunophenotypes in acute leukaemias: incidence and clinical correlations. *Br J Haematol*. 1989 Aug;72(4):512-8.
- *Shin YK, Choi EY, Kim SH, Chung J, Chung DH, Park WS, Jung KC, Kim HS, Park S, Kim HJ, Park MH, Min CK, Kim CC, Park SH: Expression of leukemia-associated antigen, JL1, in bone marrow and thymus. *Am J Pathol*. 2001 Apr;158(4):1473-80.
- *Vitale C, Romagnani C, Puccetti A, Olive D, Costello R, Chiossone L, Pitto A, Bacigalupo A, Moretta L, Mingari MC: Surface expression and function of p75/AIRM-1 or CD33 in acute myeloid leukemias: engagement of CD33 induces apoptosis of leukemic cells. *Proc Natl Acad Sci U S A*. 2001 May 8;98(10):5764-9.
- *Hernández-López C, Varas A, Sacedón R, Jiménez E, Muñoz JJ, Zapata AG, Vicente A: Stromal cell-derived factor 1/CXCR4 signaling is critical for early human T-cell development. *Blood*. 2002 Jan 15;99(2):546-54.
- *Leone AM, Rutella S, Bonanno G, Abbate A, Rebuzzi AG, Giovannini S, Lombardi M, Galiuto L, Liuzzo G, Andreotti F, Lanza GA, Contemi AM, Leone G, Crea F: Mobilization of bone marrow-derived stem cells after myocardial infarction and left ventricular function. *Eur Heart J*. 2005 Jun;26(12):1196-204.
- *Schenk M, Bouchon A, Birrer S, Colonna M, Mueller C: Macrophages expressing triggering receptor expressed on myeloid cells-1 are underrepresented in the human intestine. *J Immunol*. 2005 Jan 1;174(1):517-24.
- *Garnache-Ottou F, Chaperot L, Biichle S, Ferrand C, Remy-Martin JP, Deconinck E, de Tilly PD, Bulabois B, Poulet J, Kuhlein E, Jacob MC, Salaun V, Arock M, Drenou B, Schillinger F, Seilles E, Tiberghien P, Bensa JC, Plumas J, Saas P: Expression of the myeloid-associated marker CD33 is not an exclusive factor for leukemic plasmacytoid dendritic cells. *Blood*. 2005 Feb 1;105(3):1256-64.
- *Hernández-Caselles T, Martínez-Esparza M, Pérez-Oliva AB, Quintanilla-Cecconi AM, García-Alonso A, Alvarez-López DM, García-Peñarribia P: A study of CD33 (SIGLEC-3) antigen expression and function on activated human T and NK cells: two isoforms of CD33 are generated by alternative splicing. *J Leukoc Biol*. 2006 Jan;79(1):46-58.
- *And many other.

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.

Cy™ and CyDye™ are registered trademarks of GE Healthcare.

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