



11-662-C025

## Monoclonal Antibody to CD33 Purified Antibody (0.025 mg)

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

**Application:** Flow Cytometry

Immunoprecipitation Western Blotting

Immunohistochemistry (frozen sections)
Application note: acetone fixation

Immunocytochemistry Mass Cytometry

Functional Application

Induction of cytokine production

**Purity:** > 95% (by SDS-PAGE)

**Purification:** Purified by protein-A affinity chromatography

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial

label.

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.



## PRODUCT DATA SHEET

## 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 Tailly 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-Peñarrubia 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.