

TECHNICAL DATA SHEET

CyFlow™ CD33 APC-Cy7 **Anti-Hu; Clone WM53**

REF BE790587

For Research Use Only.
Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD33
Alternative Names	p67, SIGLECT-3
Clone	WM53
Clonality	monoclonal
Format	APC-Cy7
Host / Isotype	Mouse / IgG1
Species Reactivity	Human, Non-Human Primates
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	Human AML cells

Specificity

The mouse monoclonal antibody WM53 recognize CD33 antigen, a 67 kDa type I transmembrane glycoprotein (immunoglobulin superfamily) expressed on myeloid progenitors, monocytes, granulocytes,

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

dendritic cells and mast cells; it is absent on platelets, lymphocytes, erythrocytes and hematopoietic stem cells.

Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 4 µl reagent / 100 µl of whole blood or 10⁶ cells in a suspension. The content of a vial (0.4 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

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.

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. < PMID: 3502990 >
- 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. < PMID: 2455535 >

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

- 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. < PMID: 2673329 >
- 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. < PMID: 11290565 >
- 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 USA. 2001 May 8; 98(10):5764-9. < PMID: 11320212 >
- 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. < PMID: 11781237 >
- 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. < PMID: 15611278 >
- 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. < PMID: 15388576 >
- 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. < PMID: 15734770 >
- 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. < PMID: 16380601 >

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

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com

Cy and CyDye are trademarks of GE Healthcare.

Contact Information:

Sysmex Partec GmbH • Am Flugplatz 13 • 02828 Görlitz • Germany
Tel +49 3581 8746 0 • Fax +49 3581 8746 70 • E-mail: info@sysmex-partec.com