Technical Data Sheet

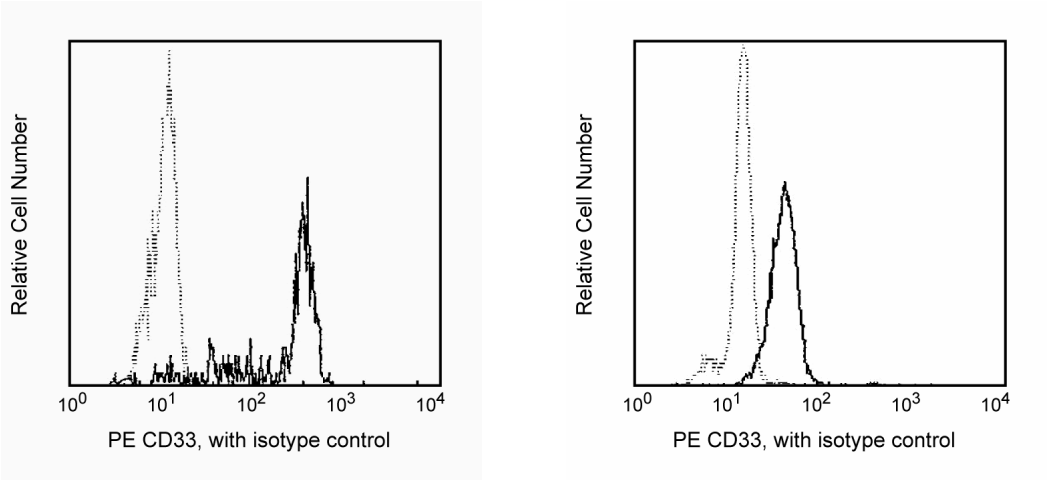
PE Mouse Anti-Human CD33

Product Information

Material Number:	**555450**
Alternate Name:	Siglec-3; SIGLEC3; Sialic acid-binding Ig-like lectin 3; p67; gp67; My9
Size:	100 Tests
Vol. per Test:	20 µl
Clone:	WM53 (also known as WM-53)
Immunogen:	Acute Myeloid Leukemia Blasts
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	IV M505
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The WM53 monoclonal antibody specifically recognizes CD33 which is also known as Sialic acid-binding Ig-like lectin 3 (Siglec-3) or gp67. CD33 is a 67 kDa type I transmembrane glycoprotein that is variably expressed on myeloid progenitors, monocytes, macrophages, dendritic cells, neutrophils, basophils, mast cells, and on some activated T cells and NK cells. Normal lymphocytes, platelets, erythrocytes and pluripotent hematopoietic stem cells do not express the CD33 antigen. This glycoprotein reportedly functions as a sialic acid-dependent cell adhesion molecule and this function can be modulated by endogenous sialoglycoconjugates when CD33 is expressed on the membrane.



Flow cytometric analysis of CD33 expression on human peripheral blood granulocytes (Left Panel) or monocytes (Right Panel). *Human whole blood was stained with either PE Mouse IgG1 κ Isotype Control (Cat. No. 555749; dashed line histograms) or PE Mouse Anti-Human CD33 (Cat. No. 561816/555450; solid line histograms). Erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). Fluorescence histograms depicting CD33 (or Ig isotype control) expression were derived from gated events with the side and forward light-scatter characteristics of viable granulocytes or monocytes. Flow cytometry was performed on a BD FACScan™ system.*

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

BD Biosciences

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Recommended Assay Procedure:

BD™ CompBeads can be used as surrogates to assess fluorescence spillover (Compensation). When fluorochrome conjugated antibodies are bound to CompBeads, they have spectral properties very similar to cells. However, for some fluorochromes there can be small differences in spectral emissions compared to cells, resulting in spillover values that differ when compared to biological controls. It is strongly recommended that when using a reagent for the first time, users compare the spillover on cells and CompBead to ensure that BD Comp beads are appropriate for your specific cellular application.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 Tests	MOPC-21
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
555899	Lysing Buffer	100 mL	(none)
561816	PE Mouse Anti-Human CD33	25 Tests	WM53

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Please refer to http://regdocs.bd.com to access safety data sheets (SDS).
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Please refer to www.bdbiosciences.com/us/s/resources for technical protocols.

References

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Favaloro EJ, Moraitis N, Koutts J, Exner T, Bradstock KF. Endothelial cells and normal circulating haemopoietic cells share a number of surface antigens. *Thromb Haemost.* 1989; 61(2):217-224. (Biology)

Freeman SD, Kelm S, Barber EK, Crocker PR. Characterization of CD33 as a new member of the sialoadhesin family of cellular interaction molecules. *Blood.* 1995; 85(8):2005-2012. (Biology)

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Nakamura Y, Noma M, Kidokoro M, et al. Expression of CD33 antigen on normal human activated T lymphocytes. *Blood.* 1994; 83(5):1442-3. (Biology)

van Vugt MJ, van den Herik-Oudijk IE, van de Winkle JG. Binding of PE-CY5 conjugates to the human high- affinity receptor for IgG (CD64). *Blood.* 1996; 88(6):2358-2361. (Biology)