Technical Data Sheet

BV421 Mouse Anti-Human CD33

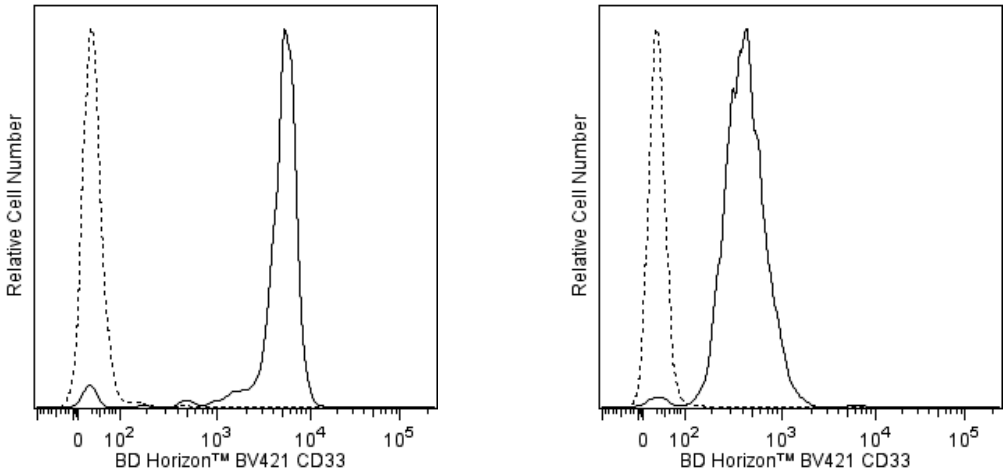
Product Information

Material Number:	**562854**
Alternate Name:	Siglec-3; SIGLEC3; Sialic acid-binding Ig-like lectin 3; p67; gp67; My9
Size:	50 tests
Vol. per Test:	5 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 binds to human CD33. CD33 is a 67 kDa type I transmembrane glycoprotein. It is expressed on monocytes, activated T cells, myeloid progenitors, mast cells and weakly on polymorphonuclear cells. CD33 is absent on normal platelets, lymphocytes, erythrocytes, and hematopoietic stem cells. Reports indicate that this glycoprotein can function as a sialic acid-dependent cell adhesion molecule and this function can be modulated by endogenous sialoglycoconjugates when CD33 is expressed on the membrane.

The antibody was conjugated to BD Horizon™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD33 expression on human peripheral blood leukocytes. *Whole blood was stained with either BD Horizon™ BV421 Mouse Anti-Human CD33 antibody (Cat. No. 562854; solid line histogram) or with a BD Horizon™ BV421 Mouse IgG1, k Isotype Control (Cat. No. 562438; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from monocytes (Left Panel) or granulocytes (Right Panel) with the light scattering properties of viable cells. Flow cytometry was performed using a BD™ LSR II Flow Cytometer 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 BD Horizon™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 were removed.

Application Notes

Application

Flow cytometry	Tested During Development

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
562438	BV421 Mouse IgG1, k Isotype Control	50 µg	X40
555899	Lysing Buffer	100 ml	(none)

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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. 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.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
7. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
8. Brilliant Violet™ 421 is a trademark of Sirigen.

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; 5(4):215-225. (Immunogen: Blocking, Flow cytometry, Fluorescence microscopy, Immunoprecipitation, Radioimmunoassa)

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; 69(2):163-171. (Clone-specific: Blocking, Flow cytometry, Immunofluorescence, Immunohistochemistry, Radioimmunoassa)

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)

Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV.* New York, NY: Oxford University Press; 1989:1-1182. (Clone-specific)

Nakamura Y, Noma M, Kidokoro M, et al. Expression of CD33 antigen on normal human activated T lymphocytes. *Blood.* 1994; 83(5):1442-1443. (Biology)

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