Technical Data Sheet

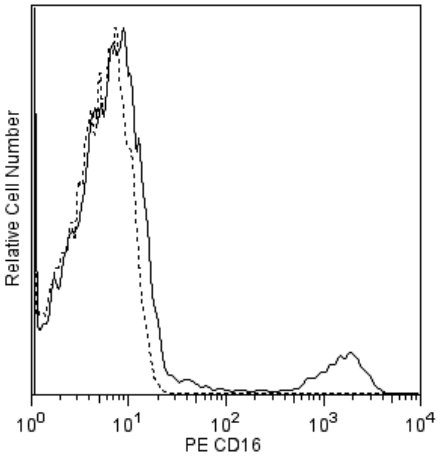
PE Mouse Anti-Human CD16

Product Information

Material Number:	**561313**
Alternate Name:	IgG Fc receptor III; IGFR3; FCG3; FCGR3; FCGRIII; FcγRIII
Size:	100 tests
Vol. per Test:	5 µl
Clone:	B73.1
Immunogen:	Human NK Cells
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	IV NL402
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The B73.1 monoclonal antibody specifically binds to CD16, the 50-70 kDa low affinity receptor for IgG, IgG Fc receptor III (FcγRIII). CD16 is expressed on NK cells, neutrophils, and on a subset of T cells from certain individuals. The B73.1 antibody binds to CD16-positive neutrophils with lower intensity when compared with some other CD16-specific antibodies. A variable number of CD16-positive lymphocytes coexpress either the CD57 antigen or low-density CD8 antigen or both. The B73.1 antibody can block Fc receptor functions mediated by CD16.



Flow cytometric analysis of CD16 on human peripheral blood lymphocytes. *Human whole blood was stained with the PE Mouse Anti-Human CD16 antibody (Cat. No. 561313; solid line histogram) or with a PE Mouse IgG1, κ Isotype Control (Cat. No. 555749; dashed line histogram). The erythrocytes were lysed with BD PharmLyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable lymphocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

Preparation and Storage

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.

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

Application Notes

Application

Flow cytometry	Routinely Tested

Recommended Assay Procedure:

CAUTION: B73.1 binding is inhibited by human serum or aggregated IgG. In whole blood preparations, CD16 shows variable reactivity with granulocytes.

Suggested Companion Products

Catalog Number	Name	Size	Clone
555749	PE Mouse IgG1, κ Isotype Control	100 tests	MOPC-21
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

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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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
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 Fluorochrome Web Page at www.bdbiosciences.com/colors.

References

Lanier LL, Kipps TJ, Phillips JH. Functional properties of a unique subset of cytotoxic CD3+ T lymphocytes that express Fc receptors for IgG (CD16/Leu-11 antigen). *J Exp Med.* 1985; 162(6):2089-2106. (Clone-specific: Flow cytometry)

Lanier LL, Le AM, Civin CI, Loken MR, Phillips JH. The relationship of CD16 (Leu-11) and Leu-19 (NKH-1) antigen expression on human peripheral blood NK cells and cytotoxic T lymphocytes. *J Immunol.* 1986; 136(12):4480-4486. (Biology)

Lanier LL, Le AM, Phillips JH, Warner NL, Babcock GF. Subpopulations of human natural killer cells defined by expression of the Leu-7 (HNK-1) and Leu-11 (NK-15) antigens. *J Immunol.* 1983; 131(4):1789-1796. (Biology)

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Perussia B, Starr S, Abraham S, Fanning V, Trinchieri G. Human natural killer cells analyzed by B73.1, a monoclonal antibody blocking Fc receptor functions. I. Characterization of the lymphocyte subset reactive with B73.1. *J Immunol.* 1983; 130(5):2133-2141. (Immunogen: Cell separation, Flow cytometry)

Perussia B, Trinchieri G, Jackson A, et al. The Fc receptor for IgG on human natural killer cells: phenotypic, functional, and comparative studies with monoclonal antibodies. *J Immunol.* 1984; 133(1):180-189. (Clone-specific: Blocking, Flow cytometry)

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