

Technical Data Sheet

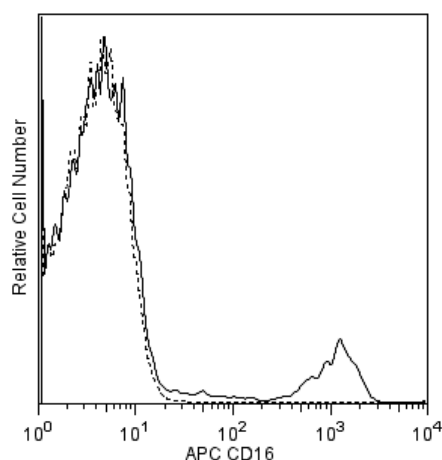
APC Mouse Anti-Human CD16

Product Information

Material Number:	561304
Alternate Name:	IgG Fc receptor III; IGFR3; FCG3; FCGR3; FCGR3III; FcγRIII
Size:	50 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 APC Mouse Anti-Human CD16 antibody (Cat. No. 561304; solid line histogram) or with a APC Mouse IgG1, κ Isotype Control (Cat. No. 554681; 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 to APC under optimum conditions, and unconjugated antibody and free APC 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
554681	APC Mouse IgG1 κ Isotype Control	0.1 mg	MOPC-21
555899	Lysing Buffer	100 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.268.5430	32.53.720.550	0120.8555.90	65.6861.0633	0800.771.7157

For country-specific contact information, visit bdbiosciences.com/how_to_order/

Conditions: The information disclosed herein is not to be construed as a recommendation to use the above product in violation of any patents. BD Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Purchase does not include or carry any right to resell or transfer this product either as a stand-alone product or as a component of another product. Any use of this product other than the permitted use without the express written authorization of Becton Dickinson and Company is strictly prohibited.

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

BD, BD Logo and all other trademarks are the property of Becton, Dickinson and Company. ©2011 BD



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- μ l 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/pharming/en/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. This APC-conjugated reagent can be used in any flow cytometer equipped with a dye, HeNe, or red diode laser.
7. 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)

Perussia B, Acuto O, Terhorst C, et al. Human natural killer cells analyzed by B73.1, a monoclonal antibody blocking Fc receptor functions. II. Studies of B73.1 antibody-antigen interaction on the lymphocyte membrane. *J Immunol*. 1983; 130(5):2142-2148. (Clone-specific: Blocking, Flow cytometry, Immunoprecipitation, Radioimmunoassay)

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)

Schmidt RE. Non-lineage/natural killer section report: new and previously defined clusters. In: Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV: White Cell Differentiation Antigens*. 1989:517-542. (Biology)