Technical Data Sheet

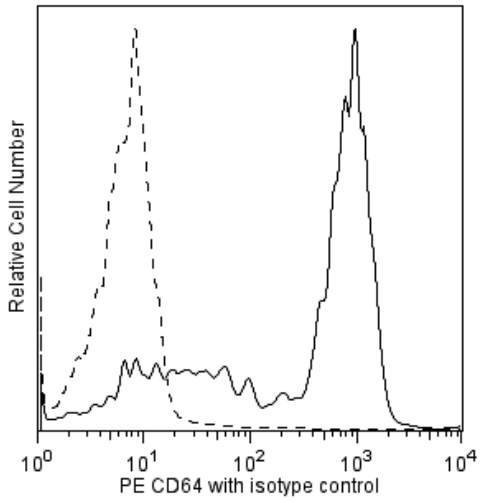
PE Mouse Anti-Human CD64

Product Information

Material Number:	**561926**
Alternate Name:	FCGR1; FcRI; Fc-gamma RI; IgG Fc Receptor I; High affinity IgG FcR1
Size:	25 tests
Vol. per Test:	20 µl
Clone:	10.1
Immunogen:	Human rheumatoid synovial fluid cells and fibronectin-purified monocytes
Isotype:	Mouse (BALB/c) IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI MA36
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The 10.1 monoclonal antibody specifically binds to CD64, a 75 kDa type I transmembrane glycoprotein that is a high affinity receptor for human IgG (FcγRI), especially the IgG1 and IgG3 subclasses. CD64 is expressed on monocytes, macrophages, dendritic cells, granulocytes activated with interferon-gamma and early myeloid lineage cells. CD64 associates with a signaling FcRγ homodimer to form the functional high affinity FcγRI complex. CD64 functions in both innate and adaptive immune responses and mediates endocytosis, phagocytosis, antibody-dependent cellular toxicity, cytokine release and superoxide generation.



Flow cytometric analysis of PE anti-human CD64 on human whole blood monocytes. *Monocytes were stained with PE anti-human CD64 (clone 10.1) and compared to monocytes stained with a PE mouse IgG1 isotype control (clone MOPC-21, Cat. No. 555749). The isotype control is represented by a dashed line and the PE anti-human CD64 by the solid line. Flow cytometry was performed on a BD FACSCalibur™ 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

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)

BD Biosciences

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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. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
3. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Fluorochrome Web Page at www.bdbiosciences.com/colors.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
7. An isotype control should be used at the same concentration as the antibody of interest.

References

Dougherty GJ, Selvendran Y, Murdoch S, Palmer DG, Hogg N. The human mononuclear phagocyte high-affinity Fc receptor, FcRI, defined by a monoclonal antibody, 10.1. *Eur J Immunol.* 1987; 17(10):1453-1459. (Biology)

Indik ZK, Hunter S, Huang MM, et al. The high affinity Fc gamma receptor (CD64) induces phagocytosis in the absence of its cytoplasmic domain: the gamma subunit of Fc gamma RIIIA imparts phagocytic function to Fc gamma RI. *Exp Hematol.* 1994; 22(7):599-606. (Biology)

Kishimoto T, von dem Borne AEG, Goyert SM,et al., ed. *Leucocyte Typing VI: White Cell Differentiation Antigens.* London: Garland Publishing; 1997. (Clone-specific)

Schlossman S, Boumell L, et al, ed. *Leucocyte Typing V.* New York: Oxford University Press; 1995. (Biology)