Technical Data Sheet

PE Mouse Anti-Human CD163

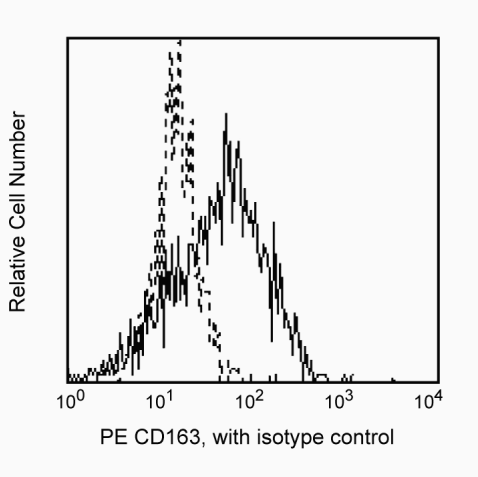
Product Information

Material Number:	**560933**
Size:	25 tests
Vol. per Test:	20 µl
Clone:	GHI/61
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Workshop:	VI M38
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The GHI/61 monoclonal antibody specifically binds to human CD163. CD163 is also known as Scavenger receptor cysteine-rich type 1 protein M130 (M130), Hemoglobin scavenger receptor and Macrophage-associated antigen. CD163 is a 110-130 kDa transmembrane glycoprotein. CD163 is a monocyte/macrophage-restricted antigen expressed on the majority of tissue macrophages and peripheral blood monocytes. CD163 belongs to the scavenger receptor superfamily. Its expression on monocytes is upregulated upon cellular activation. CD163 expression reportedly changes on monocytes and macrophages as these cells differentiate. This finding suggests a role for this molecule in the differentiation and/or regulation of monocyte and macrophage function. CD163 may play a role in the clearance and endocytosis of hemoglobin and haptoglobin complexes by macrophages.

It has been reported (Maniecki et al., 2011) that the presence of calcium impacts the binding affinity of clone GHI/61 to CD163. There is a variation in detecting CD163 positive monocytes when the cells are prepared with different anticoagulants, where heparin was observed to have the highest inhibitory effect on clone GHI/61.



Profile of peripheral blood monocytes on a FACScan BDIS (San Jose, CA)

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

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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. 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.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References

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

Law SK, Micklem KJ, Shaw JM. A new macrophage differentiation antigen which is a member of the scavenger receptor superfamily. *Eur J Immunol.* 1993; 23(9):2320-2325. (Biology)

Maniecki MB, Etzerodt A, Moestrup S, Møller J, Graversen J. Comparative assessment of the recognition of domain-specific CD163 monoclonal antibodies in human monocytes explains wide discrepancy in reported levels of cellular surface CD163 expression. *Immunobiology.* 2011; 216(8):882-890. (Biology)

Pulford K, Micklem K, Thomas J, Jones M, Mason DY. A 72-kD B cell-associated surface glycoprotein expressed at high levels in hairy cell leukaemia and plasma cell neoplasms. *Clin Exp Immunol.* 1991; 85(3):429-435. (Biology)

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