Technical Data Sheet

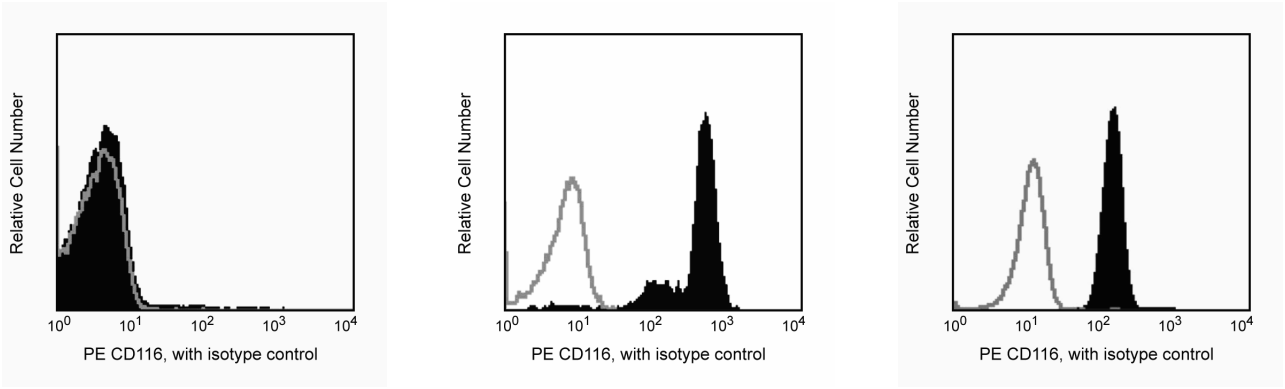
PE Mouse Anti-Human CD116

Product Information

Material Number:	**551373**
Alternate Name:	CSF2RA; GM-CSF Receptor alpha; GM-CSFRα; GMCSFRA; GMR, SMDP4
Size:	0.2 mg
Concentration:	0.2 mg/ml
Clone:	hGMCSFR-M1
Immunogen:	Recombinant human GM-CSFR
Isotype:	Mouse IgG1, κ
Workshop:	V C007
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The hGMCSFR-M1 antibody reacts with the subunit (GM-CSFR) of the human Granulocyte-Macrophage Colony-Stimulating Factor Receptor complex. This 75-85 kD subunit is also known as CD116. The hGMCSFR-M1 antibody was first clustered at the Fifth International Workshop on Human Leucocyte Differentiation Antigens. The GM-CSFR subunit associates with the 120-140 kD βc subunit (common subunit, CD131), that is shared with the receptors for interleukins IL-3 and IL-5. Both of the chains of the GM-CSFR complex are involved in ligand binding and intracellular signaling. The α chain appears to transmit most of the biological signals. CD116 is expressed by a variety of myeloid cell lines, hematopoietic and non-hematopoetic tumor cells, and normal cell types including monocytes, macrophages, neutrophils, eosinophils, myeloid dendritic cells, endothelial cells, fibroblasts, and placental trophoblasts. Lymphocytes are negative for GM-CSFR expression. Reports suggest that GM-CSFR plays a role in myeloid lineage growth and differentiation. The immunogen used to generate the hGMCSFR-M1 hybridoma was recombinant human GM-CSFR.



Flow cytometric analysis of GM-CSFRα expression on human peripheral blood leucocytes. *Whole blood was treated with Pharm Lyse™ (Cat No. 555899) to lyse erythrocytes, then blocked with 5 ug/10^6 cells normal polyclonal human IgG (Sigma No. I-4506) prior to staining with either 0.5ug/10^6 cells PE Mouse Anti-Human CD116 (Cat. No. 551373; filled histograms) or PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; empty histograms). Fluorescent histograms were derived from gated events with the side and forward light-scatter characteristics of viable lymphocytes (left panel), monocytes (center panel) and granulocytes (right panel). Note: Certain human cell lines or cell types (e.g., neutrophils, monocytes) can first be treated with reagents that block receptors for the Fc regions of immunoglobulin to avoid nonspecific immunofluorescent staining mediated by Fc receptors.*

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

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Suggested Companion Products

Catalog Number	Name	Size	Clone
555899	Lysing Buffer	100 mL	(none)
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21
349202	BD FACS™ Lysing Solution	100 mL	(none)
554656	Stain Buffer (FBS)	500 mL	(none)
554657	Stain Buffer (BSA)	500 mL	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. An isotype control should be used at the same concentration as the antibody of interest.
3. 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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

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