Technical Data Sheet

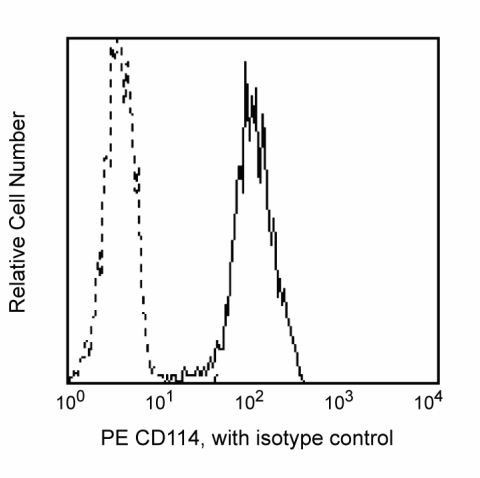
# PE Mouse Anti-Human CD114

## Product Information

| | |
|---|---|
| **Material Number:** | **554538** |
| **Alternate Name:** | GCSFR; G-CSF Receptor; G-CSF-R; G-CSFR; HG-CSFR; CSF3R |
| **Size:** | 0.2 mg |
| **Concentration:** | 0.2 mg/ml |
| **Clone:** | LMM741 |
| **Immunogen:** | G-CSFR cDNA transfected cells. |
| **Isotype:** | Mouse IgG1, κ |
| **Reactivity:** | QC Testing: Human |
| **Workshop:** | VI MA98 |
| **Storage Buffer:** | Aqueous buffered solution containing ≤0.09% sodium azide. |

## Description

The LMM741 monoclonal antibody specifically recognizes CD114 which is also known as the Granulocyte-Colony Stimulating Factor Receptor (G-CSFR). CD114 is a ~150 kDa type I transmembrane glycoprotein that is encoded by CSF3R (colony stimulating factor 3 receptor) and belongs to the class 1 cytokine receptor family. CD114 is expressed on granulocytes, monocytes, dendritic cells, endothelial cells, platelets, placenta and myeloid leukemias and a variety of tumor cell lines. CD114 serves as the receptor for granulocyte colony stimulating factor (G-CSF) which plays a role in myeloid cell proliferation and differentiation. The immunogen used to generate this hybridoma was cells transfected with an expression vector containing a full-length cDNA encoding the human G-CSFR.




***Flow cytometric analysis of CD114 expression on BAF19 cell line.*** *BAF19 cells were stained with either PE Mouse Anti-Human CD114 (Cat. No. 554538; solid line histogram) or PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; dashed line histogram). Fluorescent histograms were derived from gated events with the forward and side light-scattering characteristic of viable cells. Flow cytometry was performed on a BD FACScan™ 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 |
|---|---|---|---|
| 554680 | PE Mouse IgG1, κ Isotype Control | 0.1 mg | MOPC-21 |
| 554656 | Stain Buffer (FBS) | 500 mL | (none) |
| 554657 | Stain Buffer (BSA) | 500 mL | (none) |

**BD Biosciences**

bdbiosciences.com

| United States | Canada | Europe | Japan | Asia Pacific | Latin America/Caribbean |
|---|---|---|---|---|---|
| 877.232.8995 | 866.979.9408 | 32.2.400.98.95 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

For country contact information, visit **bdbiosciences.com/contact**

## 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

Kasper B, Welte K, Hadam MR. CD114 (granulocyte-colony stimulating factor receptor) Workshop Panel report. In: Kishimoto T. Tadamitsu Kishimoto .. et al., ed. *Leucocyte typing VI : white cell differentiation antigens : proceedings of the sixth international workshop and conference held in Kobe, Japan, 10-14 November 1996.* New York: Garland Pub.; 1997:1072-1074. (Biology)

Guesdon JL, Ternynck T, Avrameas S. The use of avidin-biotin interaction in immunoenzymatic techniques. *J Histochem Cytochem.* 1979; 27(8):1131-1139. (Biology)

Nicholson SE, Oates AC, Harpur AG, Ziemiecki A, Wilks AF, Layton JE. Tyrosine kinase JAK1 is associated with the granulocyte-colony-stimulating factor receptor and both become tyrosine-phosphorylated after receptor activation. *Proc Natl Acad Sci U S A.* 1994; 91(8):2985-2988. (Biology)