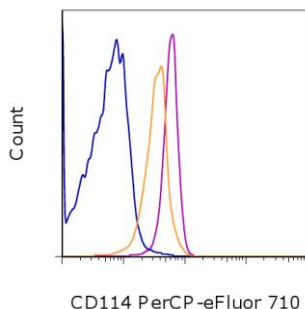


Anti-Human CD114 (G-CSFR) PerCP-eFluor® 710

Catalog Number: 46-1149

Also known as: Granulocyte colony-stimulating factor receptor, CSF3R

RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with Anti-Human CD114 (G-CSFR) PerCP-eFluor® 710. Cells in the lymphocyte (blue histogram), monocyte (orange histogram), and granulocyte (purple histogram) gates were used for analysis.

Product Information

Contents: Anti-Human CD114 (G-CSFR) PerCP-eFluor® 710



Catalog Number: 46-1149

Clone: LMM741

Concentration: 5 µL (0.25 µg)/test

Host/Isotype: Mouse IgG1, kappa



Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material.



Batch Code: Refer to vial



Use By: Refer to vial

Contains sodium azide

Description

This LMM741 monoclonal antibody reacts with human CD114, which is also known as granulocyte colony-stimulating factor receptor (G-CSFR). A type I hematopoietin cytokine receptor, CD114 is expressed on granulocytes such as neutrophils, myeloid cells, monocytes, and leukemic cells. This receptor is absent from lymphocytes, erythrocytes, and eosinophils. CD114 can also be detected on non-hematopoietic cells, including neurons, endothelial cells, and cardiomyocytes. Studies demonstrate that expression of CD114 can be downregulated by LPS, TNF, phorbol ester, and G-CSF itself. Binding of G-CSF binding induces homodimerization of the receptor that activates signaling transduction (e.g., the JAK/STAT and Erk1/2 pathways) to mediate cell proliferation, survival, and differentiation.

Applications Reported

This LMM741 antibody has been reported for use in flow cytometric analysis.

Applications Tested

This LMM741 antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.25 µg) per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test.

PerCP-eFluor® 710 can be used in place of PE-Cy5, PE-Cy5.5 or PerCP-Cy5.5. PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm). Please make sure that your instrument is capable of detecting this fluorochrome. For a filter configuration, we recommend using the 685 LP dichroic mirror and 710/40 band pass filter, however the 695/40 band pass filter is an acceptable alternative.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

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Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.ebioscience.com •
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References

Gibbs KD Jr, Gilbert PM, Sachs K, Zhao F, Blau HM, Weissman IL, Nolan GP, Majeti R. Single-cell phospho-specific flow cytometric analysis demonstrates biochemical and functional heterogeneity in human hematopoietic stem and progenitor compartments. *Blood*. 2011 Apr 21;117(16):4226-33. (**LMM741**, FC)

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Sampson M, Zhu QS, Corey SJ. Src kinases in G-CSF receptor signaling. *Front Biosci*. 2007 Jan 1;12:1463-74.

Hollenstein U, Homoncik M, Stohlawetz PJ, Marsik C, Sieder A, Eichler HG, Jilma B. Endotoxin down-modulates granulocyte colony-stimulating factor receptor (CD114) on human neutrophils. *J Infect Dis*. 2000 Jul;182(1):343-6.

Khwaja A, Carver J, Jones HM, Paterson D, Linch DC. Expression and dynamic modulation of the human granulocyte colony-stimulating factor receptor in immature and differentiated myeloid cells. *Br J Haematol*. 1993 Oct;85(2):254-9.

Related Products

11-0168 Anti-Human CD16 FITC (eBioCB16 (CB16))

46-4714 Mouse IgG1 K Isotype Control PerCP-eFluor® 710 (P3.6.2.8.1)