TECHNICAL DATA SHEET

CyFlow™ CD116 PE

Anti-Hu; Clone 4H1

REF **BT220180**

For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD116
Alternative Names	GM-CSFR a-subunit, GMCSFR, GMR
Clone	4H1
Clonality	monoclonal
Format	PE
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity	100 tests
Immunogen	CD116-transfected COS cells

Specificity

The mouse monoclonal antibody 4H1 recognizes CD116 antigen, a 80 kDa GM-CSF receptor α subunit expressed e.g. by neutrophils, eosinophils, monocytes and macrophages.

Contact Information:

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Application

The reagent is designed for Flow Cytometry analysis of human blood cells. Recommended usage is 10 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension. The content of a vial (1 ml) is sufficient for 100 tests.

Other usages may be determined from the scientific literature.

Storage Buffer

The reagent is provided in stabilizing phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.1% (w/v) sodium azide.

Storage and Stability

Storage	Avoid prolonged exposure to light. Store in the dark at 2-8°C. Do not freeze.
Stability	Do not use after expiration date stamped on vial label.

Background Information

CD116 (GM-CSF R α) is the low affinity receptor for granulocyte-macrophage colony-stimulating factor (GM-CSF). CD116 heterodimerizes with CD131, the common β chain subunit shared with IL-3 and IL-5 receptors, to form the high affinity GM-CSF receptor. CD116 is expressed by myeloid cells including macrophages, neutrophils, eosinophils, dendritic cells, and their precursors, as well as on endothelial cells. It is being used as a specific marker of myeloid leukemias.

References

- Stomski FC, Woodcock JM, Zacharakis B, Bagley CJ, Sun Q, Lopez AF: Identification of a Cys motif in the common beta chain of the interleukin 3, granulocyte-macrophage colony-stimulating factor, and interleukin 5 receptors essential for disulfide-linked receptor heterodimerization and activation of all three receptors. J Biol Chem. 1998 Jan 9; 273(2):1192-9. < PMID: 9422786 >
- Huntington ND, Legrand N, Alves NL, Jaron B, Weijer K, Plet A, Corcuff E, Mortier E, Jacques Y, Spits H, Di Santo JP: IL-15 trans-presentation promotes human NK cell development and differentiation in vivo. J Exp Med. 2009 Jan 16; 206(1):25-34. < PMID: 19103877 >
- Schwarzmaier D, Foell D, Weinhage T, Varga G, Däbritz J: Peripheral monocyte functions and activation in patients with quiescent Crohn's disease. PLoS One. 2013 Apr 26; 8(4):e62761. < PMID: 23658649 >

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• Koba C, Haruta M, Matsunaga Y, Matsumura K, Haga E, Sasaki Y, Ikeda T, Takamatsu K, Nishimura Y, Senju S: Therapeutic effect of human iPS-cell-derived myeloid cells expressing IFN-β: against peritoneally disseminated cancer in xenograft models. PLoS One. 2013 Jun 24; 8(6):e67567. < PMID: 23826321 >

The Safety Data Sheet for this product is available at www.sysmex-partec.com/services.

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