

TECHNICAL DATA SHEET

CyFlow™ CD116 Purified Anti-Hu; Clone 4H1

REF BW148413

**For Research Use Only.
Not for use in diagnostic or therapeutic procedures.**

Specifications

Antigen	CD116
Alternative Names	GM-CSFR α -subunit, GMCSFR, GMR
Clone	4H1
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/ml]
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.

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Application

Based on published sources, this antibody is suitable for the following applications:

- Flow cytometry
- Immunoprecipitation
- Western blot
- Immunohistochemistry (frozen sections)

Storage Buffer

The reagent is provided in Tris buffered saline (TBS) solution, pH ≈8.0, 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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