TECHNICAL DATA SHEET

CyFlow™ CD163 Purified

Anti-Hu; Clone GHI/61

REF **BD610289**

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For Research Use Only.

Not for use in diagnostic or therapeutic procedures.

Specifications

Antigen	CD163
Alternative Names	GH1/61, D11, RM3/1, M130
Clone	GHI/61
Clonality	monoclonal
Format	Purified
Host / Isotype	Mouse / IgG1
Species Reactivity	Human
Negative Species Reactivity	—
Quantity [Concentration]	0.1 mg [1 mg/mL]
Immunogen	Hairy cell leukemia cells

Specificity

The mouse monoclonal antibody GHI/61 recognizes CD163 antigen, a 130 kDa high affinity scavenger receptor expressed mainly on monocytes and macrophages, which binds hemoglobin-haptoglobin complex. HLDA VI—WS Code M38

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 phosphate buffered saline (PBS) solution, pH ≈7.4, containing 0.09% (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

CD163 (M130) is a member of the scavenger receptor family, accounting for the clearance of hemoglobin-haptoglobin complexes during limited hemolysis, which protects the body, in particular the kidneys, against heme-mediated oxidative damages. It does not have measurable affinity for noncomplexed hemoglobin or haptoglobin. Immunomodulatory role of CD163 has been postulated. CD163 is expressed by cells of the monocyte-macrophage lineage and its extracellular part also circulates in plasma as a soluble protein, especially during sepsis and other conditions affecting macrophage activity, when its level may raise manyfold.

Warnings

Non-Hazardous Statement: This is not considered hazardous by the criteria in 29 CFR 1910.1200 or the General Classification guideline for preparations of the EU.

Safety Data Sheet Statement: Important information regarding the safe handling, transport, and disposal of this product is contained in the Safety Data Sheet (SDS). SDS are available at http://www.sysmex-partec.com/services, or at https://us.sysmex-flowcytometry.com/ (U.S. customers only).

References

- Pulford K, Micklem K, McCarthy S, Cordell J, Jones M, Mason DY: A monocyte/macrophage antigen recognized by the four antibodies GHI/61, Ber-MAC3, Ki-M8 and SM4. Immunology. 1992 Apr; 75(4):588-95. < PMID: 1592433 >
- Law SK, Micklem KJ, Shaw JM, Zhang XP, Dong Y, Willis AC, Mason DY: A new macrophage differentiation antigen which is a member of the scavenger receptor superfamily. Eur J Immunol. 1993 Sep; 23(9):2320-5. < PMID: 8370408 >
- Kishimoto T, Goyert S, Kikutani H, Mason D, Miyasaka M, Moretta L, Ohno T, Okumura K, Shaw S, Springer TA, Sugamura K, Sugawara H, von dem Borne AEGK, Zola H (Eds): Leucocyte Typing VI. Garland Publishing Inc, New York. 1997; 1-1342. < NLM ID: 9712219 >
- Møller HJ, Peterslund NA, Graversen JH, Moestrup SK: Identification of the hemoglobin scavenger receptor/CD163 as a natural soluble protein in plasma. Blood. 2002 Jan 1; 99(1):378-80. < PMID: 11756196 >
- Philippidis P, Mason JC, Evans BJ, Nadra I, Taylor KM, Haskard DO, Landis RC: Hemoglobin scavenger receptor CD163 mediates interleukin-10 release and heme oxygenase-1 synthesis: antiinflammatory monocyte-macrophage responses in vitro, in resolving skin blisters in vivo, and after cardiopulmonary bypass surgery. Circ Res. 2004 Jan 9; 94(1):119-26. < PMID: 14656926 >
- Madsen M, Møller HJ, Nielsen MJ, Jacobsen C, Graversen JH, van den Berg T, Moestrup SK: Molecular characterization of the haptoglobin-hemoglobin receptor CD163: Ligand binding properties of the scavenger receptor cysteine-rich domain region. J Biol Chem. 2004 Dec 3; 279(49):51561-7. < PMID: 15448162 >
- Kim WK, Alvarez X, Fisher J, Bronfin B, Westmoreland S, McLaurin J, Williams K: CD163 identifies perivascular macrophages in normal and viral encephalitic brains and potential precursors to perivascular macrophages in blood. Am J Pathol. 2006 Mar; 168(3):822-34. < PMID: 16507898 >
- Moniuszko M, Kowal K, Rusak M, Pietruczuk M, Dabrowska M, Bodzenta-Lukaszyk A: Monocyte CD163 and CD36 expression in human whole blood and isolated mononuclear cell samples: influence of different anticoagulants. Clin Vaccine Immunol. 2006 Jun; 13(6):704-7. < PMID: 16760331 >

• Bover LC, Cardó-Vila M, Kuniyasu A, Sun J, Rangel R, Takeya M, Aggarwal BB, Arap W, Pasqualini R: A previously unrecognized protein-protein interaction between TWEAK and CD163: potential biological implications. J Immunol. 2007 Jun 15; 178(12):8183-94. < PMID: 17548657 >

• Kusi KA, Gyan BA, Goka BQ, Dodoo D, Obeng-Adjei G, Troye-Blomberg M, Akanmori BD, Adjimani JP: Levels of soluble CD163 and severity of malaria in children in Ghana. Clin Vaccine Immunol. 2008 Sep; 15(9):1456-60. < PMID: 18632918 >

Symbols

REF	Reference number	Σ	Contains sufficient for <n> tests
RUO	For research use only		Temperature limit
LOT	Batch code		Keep away from sunlight
	Manufacturer		Consult accompanying documents
	Use-by date	UDI	Unique device identifier