PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD163

PURE	ASR	REF	IQP-570P	CONC	50 µg/ml
FITC	ASR	REF	IQP-570F	CONC	50 µg/ml
R-PE	ASR	REF	IQP-570R	CONC	50 µg/ml
Biotin	ASR	REF	IQP-570B	CONC	50 µg/ml

ASR Analyte Specific Reagent, analytical and performance characteristics are not established. The product comply with the ASR definitions of the U.S. Food & Drug Administration (FDA).

Description

Clone

MAC2-158

Isotype

Murine IgG1

Specificity

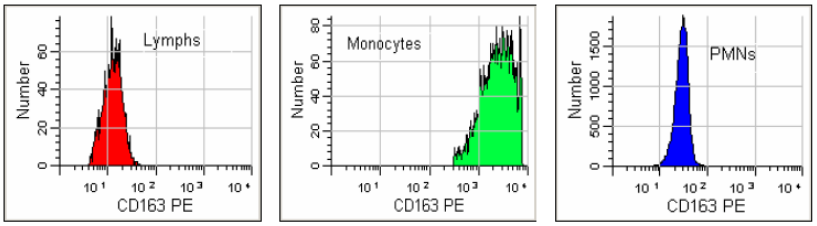
The CD163 antigen is the cysteine-rich human scavenger receptor protein (p155, M130) found on mononuclear phagocytes, monocytes, and macrophages. CD163 is up-regulated on mononuclear phagocytes by IL-4, IL-6 and dexamethasone and serves as a receptor for the hemoglobin / haptoglobin complex. Expression of CD163 is restricted to cells of monocyte lineage and increases as the monocytes mature into macrophages. CD163 is present on all $CD14^+$ monocytes, most $CD64^+$ monocytes, and demonstrates higher expression on $CD16^+$ monocytes. Stimulation of monocytes and macrophages by lipopolysacharide (LPS), IL-10 , and tumor necrosis factor alpha (TNF-α) causes shedding of CD163 from the cell surface into plasma or supernatant.

Applications

Flow Cytometry, ELISA, Fluorescent Microscopy, Western blot, Immunohistochemistry.

Representative data

Staining with clone MAC2-158 (CD163) monoclonal antibodies is illustrated by flow cytometry analysis of blood cells. Direct staining was performed using 10 µl of the PE-conjugated antibody and 100 µl of blood sample.



Handling and Storage

Antibodies are supplied in 0.01 M sodium phosphate, 0.15 M NaCl; pH 7.3, 0.2% BSA, 0.09% sodiumazide (NaN_3). Store the vials at 2-8 °C. Monoclonal antibodies should be protected from prolonged exposure to light. Reagents are stable for the period shown on the vial label when stored properly.

Warranty Products sold hereunder are warranted only to conform to the quantity and contents stated on the label at the time of delivery to the customer. There are no warranties, expressed or implied, which extend beyond the description on the label of the product. IQ Products is not liable for property damage, personal injury, or economic loss caused by the product.

Characterization

To ensure consistently high-quality reagents, each batch of monoclonal antibody is tested for conformance with characteristics of a standard reagent. Representative flow cytometric data is included in this data sheet.

Warning All products contain sodium azide. This chemical is poisonous and hazardous. Handling should be done by trained staff only.

References

1 U.S. Patent #5,077,216:"Monoclonal antibodies specific for a humanmononuclear phagocyte-specific antigen" by Morganelli PM and Guyre PM; December 31, 1991.
2 Buechler C, Ritter M, Orso E, Langmann T, Klucken J, Schmitz G: Regulation of scavenger receptor CD163 expression in human monocytes and macrophages by pro- and anti-inflammatory stimuli. *J Leukoc Biol* 67:97-102, 2000.
3 Morganelli PM and Guyre PM:INF-γ plus glucocorticoids stimulate the expression of a newly identified human mononuclear phagocyte-specific antigen. *J Immuol* 140, 2296, 1988.
4 Pulford K, Micklem K, Law S, Mason D: CD163 (M130 antigen) workshop panel report. In: T. Kishimoto, H. Kikutani, A. von dem Borne, S. Goyert, D. Mason, M. Miyasaka, L. Moretta, K. Omumura, S. Shaw, T. Springer, K. Sugamura and H. Zola (Eds), Leukocyte Typing VI. Garland Publishing, New York, p. 1089-91, 1998.
5 Sulahian, TH, Hogger P, Wahner AE, Wardwell K, Goulding NJ, Sorg C, Droste A, Stehling M, Wallace PK, Morganelli PM, Guyre PM: Human monocytes express CD163m, which is upregulated by IL-10 and identical to p155. *Cytokine* 12:1312-21,2000.
6 Möller HJ and Moestrup SK: CD163: a regulated hemoglobin scavenger receptor with a role in the anti-inflammatory response. *Ann Med*36:347-354,2004.
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8 Davis BH and Zarev PV: Human monocyte CD163 expression inversely correlates with soluble CD163 plasma levels. *Cytometry*, 63:16-22,2005.
9 Lau SK, Chu PG, Weiss LM: CD163 A specific marker of macrophages in paraffin-embedded tissue samples. *Am J Clin Pathol*122:794-801,2004.
10 Manieckia MB, Etzerodtb A, Moestrup SK, Møller HJ, Graversen JH: Comparative assessment of the recognition of domain-specific CD163 monoclonal antibodies in human monocytes explains wide discrepancy in reported levels of cellular surface CD163 expression. *Immunobiology*, 216:882-90,2011.

Explanation of used symbols

	Consult instructions for use
REF	Catalogue number
	Sufficient for
	Caution, consult accompanying document
	Keep away from (sun)light
	Biological risks
	Temperature limitation (°C)
ASR	Analyte Specific Reagent
LOT	Batch code
	Use by yyyy-mm-dd
	Manufacturer

	Conjugates		**Ex -max (nm)**	**Em -max (nm)**
P	PURE	Unconjugated antibody	-	-
F	FITC	Fluorescein Isothiocyanate	488	519
R	R-PE	R-Phycoerythrin	488, 532	578
C	CyQ	Tandem conjugate of R-PE-and Cy5.18	488, 532	667
A	APC	Allophycocyanin	595, 633, 635, 647	660
D	Dy-410	Violet Dye 410	405	460
PC	PerCP	Peridinin-chlorophyll-protein	488, 532	678
PCC	PerCP-Cy5.5	Tandem conjugate of PerCP-and Cy5.5	488, 532	695

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