PRODUCT INFORMATION SHEET

Monoclonal antibodies detecting human antigens

CD64

PURE	ASR	REF	IQP-568P	CONC	50 µg/ml
FITC	ASR	REF	IQP-568F	CONC	50 µg/ml
R-PE	ASR	REF	IQP-568R	CONC	50 µg/ml
CyQ	ASR	REF	IQP-568C	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 22

Isotype Murine IgG1

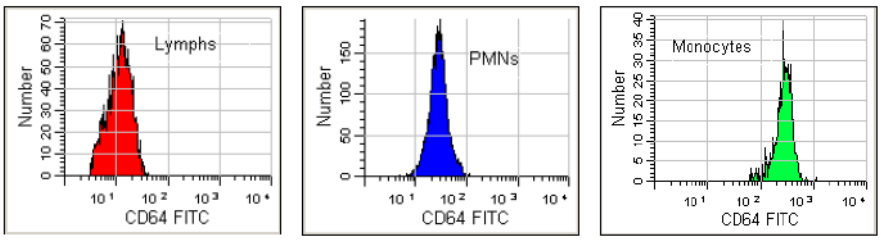
Specificity

CD64 reacts with the Fc gamma receptor 1 (FcγR1), a glycoprotein with a molecular weight of 72kDa. The antigen is a high-affinity receptor for IgG and is able to bind human IgG1 and IgG3. The antigen is expressed on macrophages, monocyte and interferon γ (IFN-γ) and Granulocyte Colony Stimulating Factor (G-CSF) stimulated neutrophils.
The antibody binds to a CD64 epitope distinct from the ligand-binding site and from the clone 32.2 antibody to CD64 epitope. It shows especially high affinity binding to human mononuclear phagocytes and polymorponuclear leukocytes exposed to IFN-γ or G-CSF. Its binding is not blocked in the presence of human IgG or immune complexes.

Application Flow cytometry

Representative data

Staining with clone 22 (CD64) monoclonal antibodies is illustrated by flow cytometry analysis of blood cells. Direct staining was performed using 10 µl of the FITC-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 Akerley WL, Guyre PM, Davis BH (1991) Neutrophil activation through high-affinity Fc gamma receptor using a monomeric antibody with unique properties. *Blood* 77, 607-615.
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3 Schiff D, Rae J, Martin T, Davis BH, Curnutte J (1997) Increased phagocyte CD64 expression and improved Fc-receptor mediated phagocytosis following in vivo recombinant human interferon-g treatment of normal human subjects. *Blood* 90, 2987-94.
4 Pan LY, Mendel DB, Zurlo J, Guyre PM (1990) Regulation of the steady state level of Fc gamma RI mRNA by IFN-gamma and dexamethasone in human monocytes, neutrophils, and U-937 cells. *J Immunol* 145, 267-75.
5 Petroni KC, Shen L, Guyre PM (1988) Modulation of human polymorphonuclear leukocyte IgG Fc receptors and Fc receptor-mediated functions by IFN-gamma and glucocorticoids. *J Immunol* 140, 3467- 72.
6 Davis, BH, Bigelow, NC, Curnutte JT, Ornvold, K (1995) Neutrophil CD64 expression: Potential diagnostic indicator of acute inflammation and therapeutic monitor of interferon-g therapy. *Lab Hematol* 1, 3-12.
7 Guyre, PM, Campbell, AS, Kniffin, WD, Fanger, MW (1990) Monocytes and polymorphonuclear neutrophils of patients with streptococcal pharyngitis express increased numbers of type I IgG Fc receptors. *J Clin Invest* 86, 1892-1986.
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10 Leino L, Sorvajarvi K, Katajisto J, Laine M, Lilius E, Pelliniemi T, Rajamaki A, Silvoniemi P, Nikoskelainen J (1997) Febrile infection changes the expression of IgG Fc receptors and complement receptors in human neutrophils in vivo. *Clin Exp Immunol* 107, 37-43.
11 Davis BH and Bigelow NC (2005) Comparison of neutrophil CD64 expression, manual myeloid immaturity counts, and automated hematology analyzer flags as indicators of infection or sepsis. *Lab Hematol* 11:137 – 147.
12 US Department of Labor, Occupational Safety and Health Administration. 29 CFR Part 1910. 1030, Occupational Exposure to Bloodborne Pathogens; Final Rule. Federal Register 235:64175-82. 1991

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

IQ Products BV
Rozenburglaan 13a
9727 DL Groningen, The Netherlands

+31 (0)50 57 57 000
+31 (0)50 57 57 002
Technical marketing@iqproducts.nl
Orders orders@iqproducts.nl
www.iqproducts.nl