

## GMP FITC anti-human CD64 Antibody

<b>Catalog# / Size</b>	260014 / 100 tests
<b>Clone</b>	10.1
<b>Workshop</b>	VI MA36
<b>Other Names</b>	FcγRI, FcR I
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	CD64 is a 72 kD single chain type I glycoprotein also known as FcγRI and FcR I. CD64 is a member of the immunoglobulin superfamily and is expressed on monocytes/macrophages, dendritic cells, and activated granulocytes. The expression can be upregulated by IFN-γ stimulation. CD64 binds IgG immune complex. It plays a role in antigen capture, phagocytosis of IgG/antigen complexes, and antibody-dependent cellular cytotoxicity (ADCC).

### Product Details

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<b>Reactivity</b>	Human
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Immunogen</b>	Human rheumatoid synovial fluid cells and fibronectin-purified monocytes.
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide, 0.2% (w/v) BSA (origin USA) and a stabilizer.
<b>Preparation</b>	The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions.
<b>Concentration</b>	200 µg/mL
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	FC - Quality tested
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Clone 10.1 recognizes the EC3 epitope of CD64. While both contain the EC3 domain, in-house testing suggests that clone 10.1 preferentially binds to CD64A (FcγRIA), but not CD64B (FcγRIB). Additional reported applications (for the relevant formats) include: blocking of human IgG3 and murine IgG2a binding to FcγRI <sup>2,5,6,11</sup> and immunohistochemical staining of acetone-fixed frozen tissue sections <sup>12</sup> .
<b>Application References</b>	<ol style="list-style-type: none"> <li>McMichael A, et al. Eds. 1987. Leucocyte Typing III. Oxford University Press. New York.</li> <li>Schlossman S, et al. Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. p. 874.</li> <li>Kishimoto T, et al. Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.</li> <li>Holl V, et al. 2004. J. Immunol. 173:6274.</li> <li>Hober D, et al. 2002. J. Gen. Virol. 83:2169.</li> <li>Cho HJ, et al. 2007. Physiol Genomics 149:60.</li> <li>van Tits L, et al. 2005. Arterioscler Thromb Vasc Biol. 25:717. PubMed</li> <li>Bruhns P, et al. 2008. Blood 113:3716. PubMed</li> <li>Yoshino N, et al. 2000. Exp. Anim. (Tokyo) 49:97. (FC)</li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

10. Carter DL, et al. 1999. Cytometry 37:41. (FC)
11. Dougherty GJ, et al. 1987. Eur. J. Immunol. 17:1453.
12. Blom AB, et al. 2003. Arthritis Rheum. 48(4):1002-14. (IHC)

#### Disclaimer

**GMP RUO Flow Cytometry Antibodies.** BioLegend GMP RUO fluorophore conjugated antibodies are manufactured in a dedicated GMP facility and compliant with ISO 13485:2016. For research use only. Not for use in diagnostic or therapeutic procedures. Our processes include:

- Batch-to-batch consistency
- Material traceability
- Documented procedures
- Documented employee training
- Equipment maintenance and monitoring records
- Lot-specific certificates of analysis
- Quality audits per ISO 13485:2016
- QA review of released products

## Antigen Details

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<b>Structure</b>	Ig superfamily, type I glycoprotein, 72 kD
<b>Distribution</b>	Monocytes, macrophages, dendritic cells, activated granulocytes
<b>Function</b>	Phagocytosis, ADCC
<b>Ligand/Receptor</b>	IgG receptor
<b>Cell Type</b>	Dendritic cells, Granulocytes, Macrophages, Monocytes
<b>Biology Area</b>	Immunology, Innate Immunity
<b>Molecular Family</b>	CD Molecules, Fc Receptors
<b>Antigen References</b>	1. Hulett M, et al. 1994. Adv. Immunol. 57:1. 2. van de Winkel J, et al. 1993. Immunol. Today 14:215.
<b>Gene ID</b>	<a href="#">2209</a>

## Related Protocols

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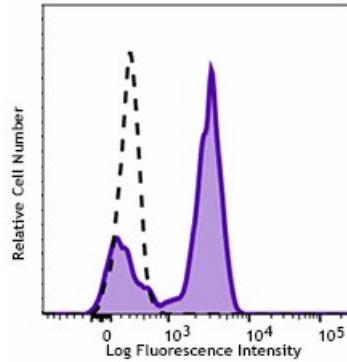
[Cell Surface Flow Cytometry Staining Protocol](#)

## Other Formats

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Biotin anti-human CD64, FITC anti-human CD64, PE anti-human CD64, Purified anti-human CD64, Alexa Fluor® 488 anti-human CD64, Alexa Fluor® 647 anti-human CD64, APC anti-human CD64, Pacific Blue™ anti-human CD64, Brilliant Violet 421™ anti-human CD64, PE/Cyanine7 anti-human CD64, PerCP/Cyanine5.5 anti-human CD64, APC/Cyanine7 anti-human CD64, Brilliant Violet 510™ anti-human CD64, Purified anti-human CD64 (Maxpar® Ready), PE/Dazzle™ 594 anti-human CD64, Brilliant Violet 605™ anti-human CD64, APC/Fire™ 750 anti-human CD64, TotalSeq™-A0162 anti-human CD64, Brilliant Violet 711™ anti-human CD64, Alexa Fluor® 700 anti-human CD64, Brilliant Violet 785™ anti-human CD64, TotalSeq™-C0162 anti-human CD64, Ultra-LEAF™ Purified anti-human CD64, TotalSeq™-B0162 anti-human CD64, TotalSeq™-D0162 anti-human CD64, GMP PE anti-human CD64

## Product Data



Typical results from human peripheral blood monocytes stained either with 10.1 FITC used at 5  $\mu$ L/test (solid histogram) or with an isotype control (dashed histogram).

## Symbols Glossary\*

Symbol	Meaning	Symbol Title	Symbol No.	Symbol	Meaning	Symbol Title	Symbol No.
	Catalog number	Catalogue number	5.1.6		Indicates the need for the user to consult the instructions for use.	Consult instructions for use	5.4.3
	Indicates the temperature limits to which the medical device can be safely exposed.	Temperature limit	5.3.7		Indicates a medical device that needs protection from light sources.	Keep away from sunlight	5.3.2
	Indicates the upper limit of temperature to which the medical device can be safely exposed.	Upper limit of temperature	5.3.6		Indicates the date after which the medical device is not to be used.	Use-by date	5.1.4
	Indicates the medical device manufacturer.	Manufacturer	5.1.1		Indicates the authorized representative in the European Community.	Authorized representative in the European Community	5.1.2
	Indicates the manufacturer's batch code so that the batch or lot can be identified.	Batch code	5.1.5		Indicates a medical device that is intended to be used as an in vitro diagnostic medical device.	<i>In vitro</i> diagnostic medical device	5.5.1

\* Symbol information is from EN ISO 15223-1:2016 Medical devices – Symbols to be used with medical device labels, labelling and information to be supplied – Part 1: General requirements

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