

GMP PE/Cyanine7 anti-human CD64 Antibody

Catalog# / Size	260370 / 100 tests
Clone	10.1
Workshop	VI MA36
Other Names	FcγRI, FcR I
Isotype	Mouse IgG1, κ
Description	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

Reactivity	Human
Reported Reactivity	Baboon, Capuchin Monkey, Chimpanzee, Squirrel Monkey
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human rheumatoid synovial fluid cells and fibronectin-purified monocytes.
Formulation	Phosphate-buffered solution, pH 7.2, containing True-Stain Monocyte Blocker™, 0.09% sodium azide and 0.2% (w/v) BSA (origin USA) and a stabilizer.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE/Cyanine7 under optimal conditions.
Concentration	200 µg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . 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.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 nm)
Application Notes	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 ^{2,5,6,11} and immunohistochemical staining of acetone-fixed frozen tissue sections ¹² .
Application References	
(PubMed link indicates BioLegend citation)	<ol style="list-style-type: none">1. McMichael A, <i>et al.</i> Eds. 1987. Leucocyte Typing III. Oxford University Press. New York.2. Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. p. 874.3. Kishimoto T, <i>et al.</i> Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.4. Holl V, <i>et al.</i> 2004. <i>J. Immunol.</i> 173:6274.5. Hober D, <i>et al.</i> 2002. <i>J. Gen. Virol.</i> 83:2169.6. Cho HJ, <i>et al.</i> 2007. <i>Physiol Genomics</i> 149:60.7. van Tits L, <i>et al.</i> 2005. <i>Arterioscler Thromb Vasc Biol.</i> 25:717. PubMed

8. Bruhns P, *et al.* 2008. *Blood* 113:3716. [PubMed](#)
9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
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

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

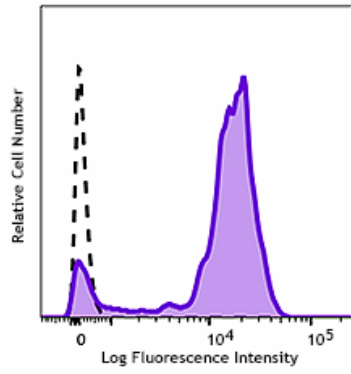
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

Other Formats

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, GMP FITC anti-human CD64, Brilliant Violet 650™ anti-human CD64, GMP PE/Dazzle™ 594 anti-human CD64

Product Data



Typical results from human peripheral blood monocytes stained either with 10.1 PE/Cyanine7 used at 5 μ L/test (filled histogram) or with an isotype control (open histogram).

For Research Use Only. Suitable for *ex vivo* cell processing. Not for injection or diagnostic or therapeutic use.

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8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587