GMP PE anti-human CD64 Antibody

Catalog# / Size	260012 / 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
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	Human rheumatoid synovial fluid cells and fibronectin-purified monocytes.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide, 0.2% (w/v) BSA (origin USA) and a stabilizer.
Preparation	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
Concentration	200 µg/mL
Storage & Handling	The antibody was purified by affinity chromatography and conjugated with PE under optimal conditions.
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)

1. McMichael A, et al. Eds. 1987. Leucocyte Typing III. Oxford University Press. New York.
2. Schlossman S, et al. Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. p. 874.
3. Kishimoto T, et al. Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.
4. Holl V, et al. 2004. J. Immunol. 173:6274.
5. Hober D, et al. 2002. J. Gen. Virol. 83:2169.
6. Cho HJ, et al. 2007. Physiol Genomics 149:60.
7. van Tits L, et al. 2005. Arterioscler Thromb Vasc Biol. 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, et al. 1994. Adv. Immunol. 57:1. 2. van de Winkel J, et al. 1993. Immunol. Today 14:215.
Gene ID	2209

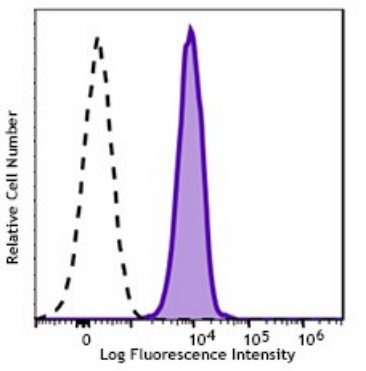
Related Protocols

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 FITC anti-human CD64

Product Data



Typical results from human peripheral blood monocytes stained either with 10.1 PE used at 5 µL/test (red histogram) or with isotype control (blue histogram).

Symbols Glossary*

Symbol	Meaning	Symbol Title	Symbol No.	Symbol	Meaning	Symbol Title	Symbol No.
REF	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	EC REP	Indicates the authorized representative in the European Community.	Authorized representative in the European Community	5.1.2
LOT	Indicates the manufacturer's batch code so that the batch or lot can be identified.	Batch code	5.1.5	IVD	Indicates a medical device that is intended to be used as an in vitro diagnostic medical device.	*In vitro* 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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