

Pacific Blue™ anti-human CD64 Antibody

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|--------------------------|---|
| Catalog# / Size | 305017 / 25 µg 305018 / 100 µg |
| Clone | 10.1 |
| Regulatory Status | RUO |
| 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

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|-------------------------------|---|
| Verified Reactivity | Human, Cynomolgus, Rhesus |
| 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 0.09% sodium azide. |
| Preparation | The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. |
| Concentration | 0.5 mg/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 | <p>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 ≤ 2.0 µg per 10⁶ cells in 100 µl volume or 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.</p> <p>* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.</p> <p>Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation.</p> <p>View full statement regarding label licenses</p> |
| Excitation Laser | Violet Laser (405 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 | 1. McMichael A, <i>et al.</i> 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)

Product Citations

1. Magg T, *et al.* 2021. *Sci Immunol.* 6:. [PubMed](#)

RRID

AB_2103460 (BioLegend Cat. No. 305017)
 AB_2103459 (BioLegend Cat. No. 305018)

Antigen Details

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|---------------------------|--|
| 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

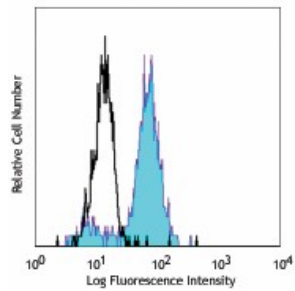
[Cell Surface Flow Cytometry Staining Protocol](#)

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

Product Data

Human peripheral blood monocytes
stained with 10.1 Pacific Blue™



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