

## APC/Fire™ 750 anti-human CD64 Antibody

|                          |   |
|--------------------------|---|
| <b>Catalog# / Size</b>   | 305035 / 25 tests<br>305036 / 100 tests   |
| <b>Clone</b>             | 10.1  |
| <b>Regulatory Status</b> | RUO   |
| <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

|                               |   |
|-------------------------------|---|
| <b>Verified Reactivity</b>    | Human, Cynomolgus, Rhesus   |
| <b>Reported Reactivity</b>    | Baboon, Capuchin Monkey, Chimpanzee, Squirrel Monkey  |
| <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 and BSA (origin USA)   |
| <b>Preparation</b>            | The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions.  |
| <b>Concentration</b>          | 0.2 mg/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>            | <a href="#">FC - Quality tested</a>   |
| <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.<br><br>* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 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, <i>et al.</i> Eds. 1987. Leucocyte Typing III. Oxford University Press. New York.</li> <li>Schlossman S, <i>et al.</i> Eds. 1995. Leucocyte Typing V. Oxford University Press. New York. p. 874.</li> <li>Kishimoto T, <i>et al.</i> Eds. 1997. Leucocyte Typing VI. Garland Publishing Inc. London.</li> <li>Höll V, <i>et al.</i> 2004. <i>J. Immunol.</i> 173:6274.</li> <li>Hober D, <i>et al.</i> 2002. <i>J. Gen. Virol.</i> 83:2169.</li> <li>Cho HJ, <i>et al.</i> 2007. <i>Physiol Genomics</i> 149:60.</li> <li>van Tits L, <i>et al.</i> 2005. <i>Arterioscler Thromb Vasc Biol.</i> 25:717. <a href="#">PubMed</a></li> <li>Bruhns P, <i>et al.</i> 2008. <i>Blood</i> 113:3716. <a href="#">PubMed</a></li> <li>Yoshino N, <i>et al.</i> 2000. <i>Exp. Anim. (Tokyo)</i> 49:97. (FC)</li> <li>Carter DL, <i>et al.</i> 1999. <i>Cytometry</i> 37:41. (FC)</li> </ol> |

11. Dougherty GJ, et al. 1987. *Eur. J. Immunol.* 17:1453.
12. Blom AB, et al. 2003. *Arthritis Rheum.* 48(4):1002-14. (IHC)

**RRID** AB\_2650833 (BioLegend Cat. No. 305035)  
AB\_2650834 (BioLegend Cat. No. 305036)

## Antigen Details

|                           |  |
|---------------------------|--|
| <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. <i>Adv. Immunol.</i> 57:1.<br>2. van de Winkel J, et al. 1993. <i>Immunol. Today</i> 14:215. |
| <b>Gene ID</b>            | <a href="#">2209</a>   |

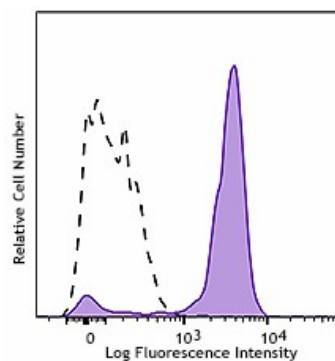
## Related Protocols

[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 were stained with anti-human CD64 (clone 10.1) APC/Fire™ 750 (filled histogram) or mouse IgG1, κ APC/Fire™ 750 isotype control (open histogram).

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