

Brilliant Violet 711™ anti-human CD64

Catalog # / Size: 2125210 / 100 tests
2125205 / 25 tests

Clone: 10.1

Isotype: Mouse IgG1, κ

Immunogen: Human rheumatoid synovial fluid cells and fibronectin-purified monocytes.

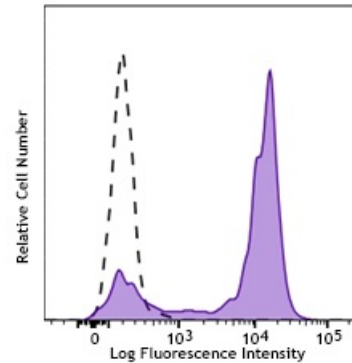
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 700 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 700.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Workshop Number: VI MA36

Concentration: Lot-specific



Human peripheral blood monocytes were stained with CD64 (clone 10.1) Brilliant Violet 711™ (filled histogram) or mouse IgG1, κ Brilliant Violet 711™ isotype control (open histogram).

Applications:

Applications: Flow Cytometry

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.

Brilliant Violet 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 711™ is a trademark of Sirigen Group Ltd.

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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 (FcγRI), but not CD64B (FcγRIIb). 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 sections¹².

**Application
References:**

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)
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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).

**Antigen
References:**

1. Hulett M, et al. 1994. *Adv. Immunol.* 57:1.
2. van de Winkel J, et al. 1993. *Immunol. Today* 14:215.