

Alexa Fluor® 700 anti-human CD64

Catalog # / Size: 2125200 / 100 tests
2125195 / 25 tests

Clone: 10.1

Isotype: Mouse IgG1, κ

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

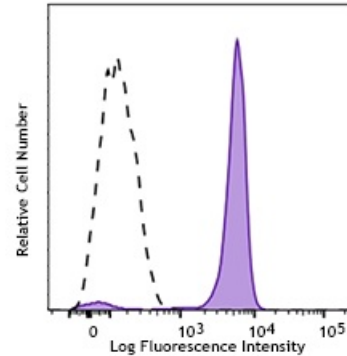
Reactivity: Human, Non-human primate, Other

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) Alexa Fluor 700 (filled histogram) or mouse IgG1 Alexa Fluor 700 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.

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)

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