SONY

Product Data Sheet

Brilliant Violet 510™ anti-human CD64

Catalog # / Size: 2125140 / 100 tests
2125135 / 25 tests

Clone: 10.1

Isotype: Mouse IgG1, κ

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

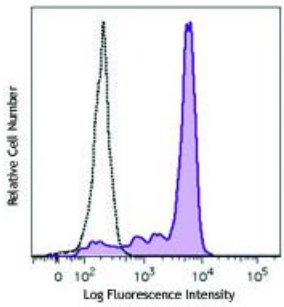
Reactivity: Human, Non-human primate, Other

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions.

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

Workshop Number: VI MA36

Concentration: Lot-specific



Human peripheral blood monocytes were stained with anti-human CD64 (clone 10.1) Brilliant Violet 510™ (filled histogram) or mouse IgG1, κBrilliant Violet 510™ isotype control (open histogram).

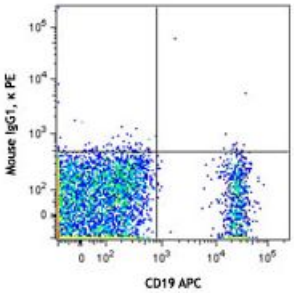
Applications:

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 or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ is a trademark of Sirigen Group Ltd.

Application Notes: Clone 10.1 recognizes the EC3 epitope of CD64. 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].



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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 References:

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

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