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# Product Data Sheet

## 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.

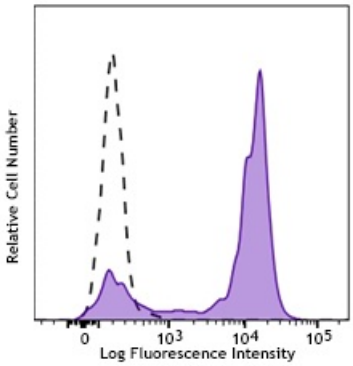
**Reactivity:** Human, Non-human primate, Other

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions.

**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:**

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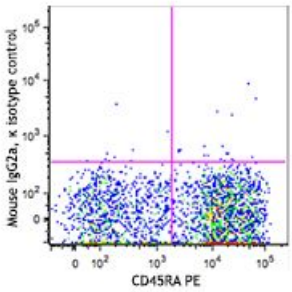
**Application Notes:** Clone 10.1 recognizes the EC3 epitope of CD64. While both contain the EC3 domain, in-house testing suggests that clone 10.1 preferentially binds to CD64A (FcγRIA), but not CD64B (FcγRIB). Additional reported applications (for the relevant formats) include: blocking of human IgG3 and murine IgG2a binding to FcγRI[2,5,6,11] and immunohistochemical staining of acetone-fixed frozen tissue sections[12].

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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)


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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.



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