

**Brilliant Violet 421™ anti-human CD11b**

**Catalog # / Size:** 2106615 / 25 tests  
2106620 / 100 tests

**Clone:** ICRF44

**Isotype:** Mouse IgG1,  $\kappa$

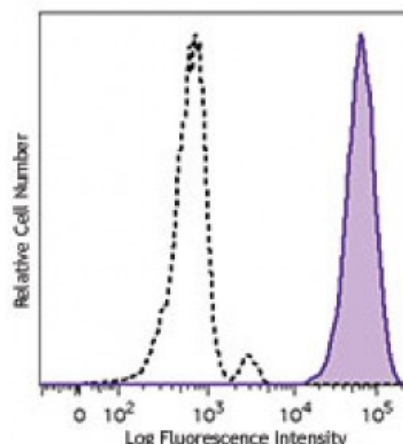
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 421™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 421™ and unconjugated antibody.

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

**Workshop Number:** IV M047

**Concentration:** Lot-specific



Human peripheral blood granulocytes were stained with CD11b (clone ICRF44) Brilliant Violet 421™ (filled histogram), or mouse IgG1,  $\kappa$  Brilliant Violet 421™ (open histogram).

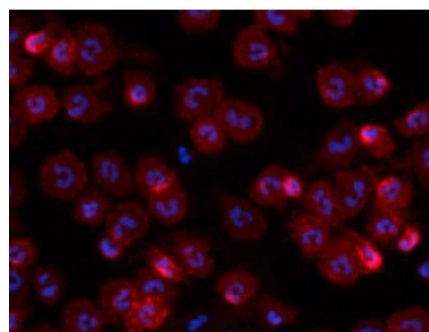
**Applications:**

**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  $\leq 5$  microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.



Human neutrophils were fixed with 1% paraformaldehyde (PFA) and then stained with 10 microg/ml CD11b (clone ICRF44) Brilliant Violet 421™ (red). Nuclei were counterstained with DRAQ5 (blue). The image was captured with a 40X objective

**Application Notes:** The ICRF44 antibody inhibits heterotypic adhesion of granulocytes in response to fMLP. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections, immunofluorescence microscopy<sup>5</sup>, stimulation of monocytes<sup>3</sup>, blocking of heterotypic PMN aggregation<sup>8</sup>, and blocking of granulocyte activation<sup>12</sup>. This clone was tested in-house and does not work on formalin fixed paraffin-embedded (FFPE) tissue.

The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-Free, 0.2 μm filtered) is recommended for functional assays (Cat. No. 301312).

- Application References:**
1. Knapp W. 1989. Leucocyte Typing IV. Oxford University Press New York.
  2. Barclay N, *et al.* 1997. The Leucocyte Antigen Facts Book. Academic Press Inc. San Diego.
  3. Rezzonico R, *et al.* 2001. *Blood* 97:2932. (Stim)
  4. Marsik C, *et al.* 2003. *Shock* 20:493. (FC)
  5. David A, *et al.* 2003. *J. Leukoc. Biol.* 74:551. (IF)
  6. Charles N, *et al.* 2010. *Nat. Med.* 16:701. (FC) [PubMed](#)
  7. Thurlow LR, *et al.* 2010. *Infect. Immun.* 128:1128. (FC) [PubMed](#)
  8. Jadhav S, *et al.* 2001. *J. Immunol.* 167:5986. (Block)
  9. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
  10. Sestak K, *et al.* 2007. *Vet. Immunol. Immunopathol.* 119:21. (FC)
  11. Wen T, *et al.* 2014. *J Immunol.* 192:5481. (FC) [PubMed](#)
  12. Sprong T, *et al.* 2003. *Blood* 102:3702. (Block)
  13. Cash JL, *et al.* 2013. *EMBO Rep.* 14:999. (FC) [PubMed](#)
  14. Larsson K, *et al.* 2015. *PNAS.* [PubMed](#)

---

**Description:** CD11b is a 165-170 kD type I transmembrane glycoprotein also known as α<sub>M</sub> integrin, Mac-1, CR3, and C3biR. CD11b non-covalently associates with integrin β<sub>2</sub> (CD18) and is expressed on granulocytes, monocytes/macrophages, dendritic cells, NK cells, and subsets of T and B cells. CD11b/CD18 is critical for the transendothelial migration of monocytes and neutrophils. It is also involved in granulocyte adhesion, phagocytosis, and neutrophil activation. CD11b/CD18 interacts with ICAM-1 (CD54), ICAM-2 (CD102), ICAM-4, CD14, CD23, heparin, iC3b, fibrinogen, and factor X.

**Antigen References:**

1. Stewart M, *et al.* 1995. *Curr. Opin. Cell Biol.* 7:690.