## **Brilliant Violet 570™ anti-human CD11b**

Catalog # / Size: 2106625 / 25 tests

Clone: ICRF44

**Isotype:** Mouse IgG1, κ

Reactivity: Human

**Preparation:** The antibody was purified by affinity

chromatography and conjugated with Brilliant Violet 570<sup>™</sup> under optimal conditions. The solution is free of unconjugated Brilliant Violet 570<sup>™</sup> and

unconjugated antibody.

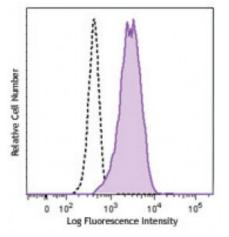
**Formulation:** Phosphate-buffered solution, pH 7.2,

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 570™ (filled histogram), or mouse IgG1, κ Brilliant Violet 570™ (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 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 570™ excites at 405 nm and emits at 570 nm. The bandpass filter 585/42 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 570™ is a trademark of Sirigen Group Ltd.

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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 microscopy5, stimulation of monocytes3, 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  $^{\text{TM}}$  purified antibody (Endotoxin <0.1 EU/ $\mu$ g, Azide-Free, 0.2  $\mu$ m 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  $\alpha_M$  integrin, Mac-1, CR3, and C3biR. CD11b non-covalently associates with integrin  $\beta_2$  (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.