

**Brilliant Violet 785™ anti-human CD11c**

**Catalog # / Size:** 2108220 / 100 tests  
2108215 / 25 tests

**Clone:** 3.9

**Isotype:** Mouse IgG1, κ

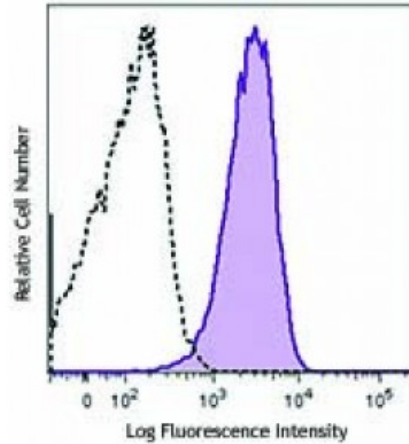
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 785™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 785™ and unconjugated antibody.

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

**Workshop Number:** III NL707

**Concentration:** Lot-specific



Human peripheral blood granulocytes were stained with CD11c (clone 3.9) Brilliant Violet 785™ (filled histogram) or mouse IgG1, κ Brilliant Violet 785™ 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 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 785™ excites at 405 nm and emits at 785 nm. The bandpass filter 780/60 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 785™ is a trademark of Sirigen Group Ltd.

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**Application Notes:** Clone 3.9 preferentially binds the activated form of CD11c, is specific for the I domain of CD11c, and is able to partially block the binding of CD11c and ICAM-4. 3.9 binding is divalent cation dependent<sup>12</sup>. While analyzing blood, it is best to use heparin as the anti-coagulant and not EDTA. Since the ability of clone 3.9 to bind to its target is divalent cation dependent, the usage of EDTA as an anti-coagulant may be detrimental to staining due to its chelating properties.

Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections<sup>4</sup>, and functional assays<sup>5,6</sup>. The LEAF™ purified antibody (Endotoxin <0.1 EU/μg, Azide-

Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 301616). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 301632) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/microg).

- Application**
- References:**
1. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
  2. Knapp W, *et al.* 1989. Leucocyte Typing IV Oxford University Press. New York.
  3. McMichael A, *et al.* Eds. 1987. Leucocyte Typing III Oxford University Press. New York.
  4. Vainer B, *et al.* 2000. *Am. J. Surg. Pathol.* 24:1115. (IHC)
  5. Ottonello L, *et al.* 1999. *Blood* 93:3505.
  6. Metelitsa LS, *et al.* 2002. *Blood* 99:4166.
  7. Sadhu C, *et al.* 2007. *J. Leukoc. Biol.* doi:10.1189/jlb.1106680. [PubMed](#)
  8. Ihanus E, *et al.* 2007. *Blood* 109:802-810.
  9. Gurer C, *et al.* 2008. *Blood* 112:1231. [PubMed](#)
  10. Asai A, *et al.* 2009. *J. Lipid Res.* 50:95. [PubMed](#)
  11. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
  12. Sadhu C, *et al.* 2008. *J. Immunoass. Immunoch.* 29:42. (FC)
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**Description:** CD11c is a 145-150 kD type I transmembrane glycoprotein also known as integrin  $\alpha_X$  and CR4. CD11c non-covalently associates with integrin  $\beta_2$  (CD18) and is expressed on monocytes/macrophages, dendritic cells, granulocytes, NK cells, and subsets of T and B cells. CD11c has been reported to play a role in adhesion and CTL killing through its interactions with fibrinogen, CD54, and iC3b.

- Antigen**
- References:**
1. Petty H. 1996. *Immunol. Today* 17:209.
  2. Springer T. 1994. *Cell* 76:301.
  3. Ihanus E, *et al.* 2007. *Blood* 109:802-810.