

**Brilliant Violet 711™ anti-human CD11c**

**Catalog # / Size:** 2108145 / 25 tests  
2108150 / 100 tests

**Clone:** 3.9

**Isotype:** Mouse IgG1, κ

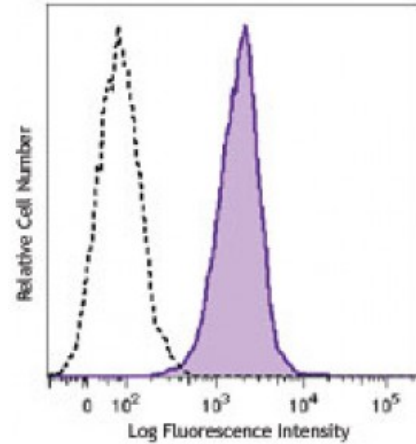
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 711™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 711™ 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 711™ (filled histogram) or mouse IgG1, κ Brilliant Violet 711™ 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 711™ excites at 405 nm and emits at 711 nm. The bandpass filter 710/50 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 711™ 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.

**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)
- 

**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.