

Brilliant Violet 510™ anti-human CD11c

Catalog # / Size: 2108170 / 100 tests
2108165 / 25 tests

Clone: 3.9

Isotype: Mouse IgG1, κ

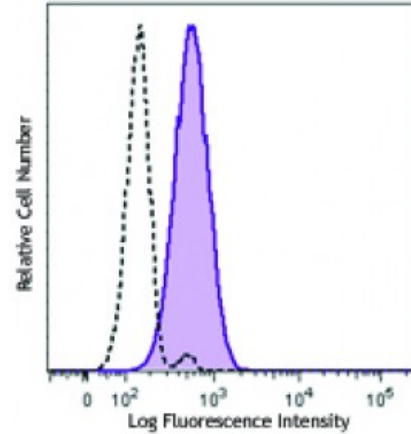
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography and conjugated with Brilliant Violet 510™ under optimal conditions. The solution is free of unconjugated Brilliant Violet 510™ 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

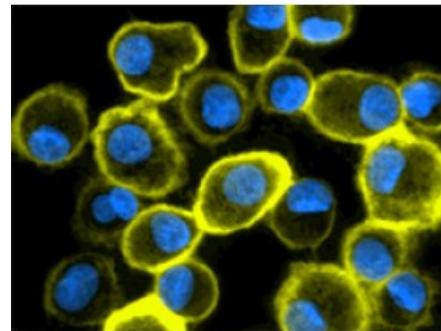


Human peripheral blood granulocytes were stained with CD11c (clone 3.9) Brilliant Violet 510™ (filled histogram) or mouse IgG1, κ Brilliant Violet 510™ isotype control (open histogram).

Applications:

Applications: Immunofluorescence

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.



Human peripheral blood mononuclear cell (PBMC) derived dendritic cells were fixed with 1% paraformaldehyde (PFA), and then stained with 10 microg/ml of CD11c (clone 3.9) Brilliant Violet 510™ (yellow) for 30 minutes at room temperature. Nuclei wer

Brilliant Violet 510™ excites at 405 nm and emits at 510 nm. The bandpass filter 510/50 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 510™ is a trademark of Sirigen Group Ltd.

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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 dependent¹². 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 sections⁴, and functional assays^{5,6}. 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:

- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- Knapp W, *et al.* 1989. Leucocyte Typing IV Oxford University Press. New York.
- McMichael A, *et al.* Eds. 1987. Leucocyte Typing III Oxford University Press. New York.
- Vainer B, *et al.* 2000. *Am. J. Surg. Pathol.* 24:1115. (IHC)
- Ottonello L, *et al.* 1999. *Blood* 93:3505.
- Metelitsa LS, *et al.* 2002. *Blood* 99:4166.
- Sadhu C, *et al.* 2007. *J. Leukoc. Biol.* doi:10.1189/jlb.1106680. [PubMed](#)
- Ihanus E, *et al.* 2007. *Blood* 109:802-810.
- Gurer C, *et al.* 2008. *Blood* 112:1231. [PubMed](#)
- Asai A, *et al.* 2009. *J. Lipid Res.* 50:95. [PubMed](#)
- Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
- 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 α_x and CR4. CD11c non-covalently associates with integrin β_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:

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