## **Product Data Sheet**

## PE/Cy5 anti-human CD11c

Catalog # / Size: 2108045 / 25 tests

2108050 / 100 tests

**Clone:** 3.9

**Isotype:** Mouse IgG1, κ

Reactivity: Human

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

chromatography, and conjugated with PE/Cy5 under optimal conditions. The solution is free of unconjugated PE/Cy5

and unconjugated antibody.

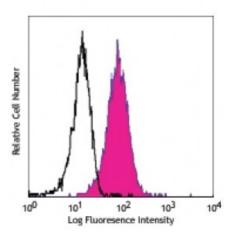
**Formulation:** Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and

0.2% (w/v) BSA (origin USA).

Workshop Number: III NL707

Concentration: Lot-specific



Human peripheral blood granulocytes stained with 3.9 PE/Cv5

## **Applications:**

**Applications:** Flow Cytometry

Recommended

**Usage:** 

Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **Test size products are transitioning from 20 microL to 5 microL per test**. Please check your vial or your CoA to find the suggested use of this reagent per million cells in 100 microL staining volume or per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

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 sections4, and functional assays  $^{5,6}$ . The LEAF  $^{\text{TM}}$  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  $^{\text{TM}}$  purified antibody (Cat. No. 301632) with a lower endotoxin limit than standard LEAF  $^{\text{TM}}$  purified antibodies (Endotoxin <0.01 EU/microg).

Application References:

1. Schlossman S, et al. Eds. 1995. Leucocyte Typing V. Oxford University Press.

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.