SONY

Product Data Sheet

Alexa Fluor® 647 anti-human CD11c

Catalog # / Size: 2108100 / 100 tests
2108095 / 25 tests

2108110 / 100 µg

Clone: 3.9

Isotype: Mouse IgG1, κ

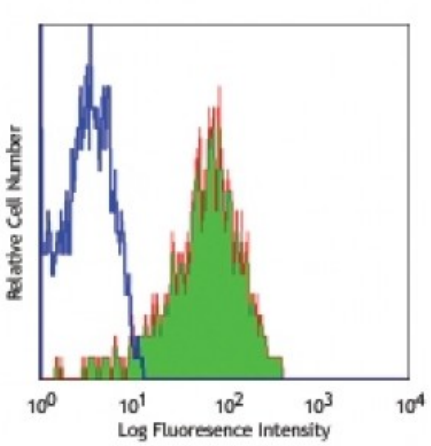
Reactivity: Human

Preparation: The antibody was purified by affinity chromatography, and conjugated with Alexa Fluor® 647 under optimal conditions.

Formulation: test sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).
microg size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

Workshop Number: III NL707

Concentration: test sizes: lot-specific; microg size: 0.5



Human peripheral blood monocytes stained with 3.9 Alexa Fluor® 647

Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis.
For test sizes, the suggested use of this reagent for immunofluorescent staining is 5 microL per million cells or 5 microL per 100 microL of whole blood.
For microg size, the suggested use of this reagent for immunofluorescent staining is ≤2 microg per 10^6 cells in 100 microL volume or 100 microL of whole blood.
It is recommended that the reagent be titrated for optimal performance for each application.
* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

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[12]. 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

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

References: 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 α_X and CR4. CD11c non-covalently associates with integrin β2 (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.