SONY

Product Data Sheet

Alexa Fluor® 647 anti-human CD14

Catalog # / Size: 2109060 / 100 tests
2109090 / 25 tests

Clone: M5E2

Isotype: Mouse IgG2a, κ

Immunogen: Full-length human CD14 protein

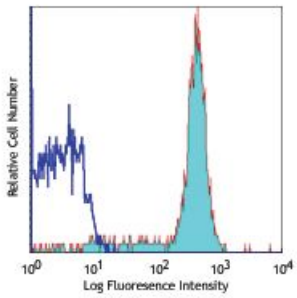
Reactivity: Human, Non-human primate

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

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

Workshop Number: III 329

Concentration: Lot-specific



Human peripheral blood monocytes stained with M5E2 Alexa Fluor® 647

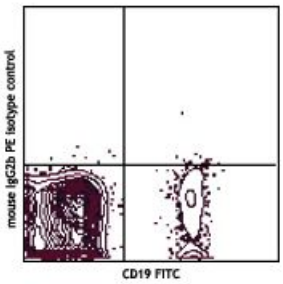
Applications:

Applications: Flow Cytometry

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl 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: The M5E2 antibody inhibits monocyte activation and cytokine production induced by LPS. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen sections, blocking of LPS stimulation4, and immunofluorescence microscopy5. Clone M5E2 is not recommended for immunohistochemical staining of formalin-fixed paraffin-embedded sections. The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 301810).



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Application References:

1. McMichael A, *et al.* 1987. Leucocyte Typing III. Oxford University Press. New York.
2. Knapp W, *et al.* Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York. (IHC-F)
3. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
4. Power CP, *et al.* 2004. *J. Immunol.* 173:5229. (Block)
5. Williams KC, *et al.* 2001. *J. Exp. Med.* 193:905.
6. Iwamoto S, *et al.* 2007. *J. Immunol.* 179:1449. (FC) PubMed
7. Santer DM, *et al.* 2010. *J. Immunol.* 485:4739. PubMed
8. Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
9. Zizzo G, *et al.* 2012. *J. Immunol.* 189:3508. PubMed
10. Stoeckius M, et al. 2017. Nat. Methods. 14:865. (PG)
11. Peterson VM, et al. 2017. Nat. Biotechnol. 35:936. (PG)

Description: CD14 is a 53-55 kD glycosylphosphatidylinositol (GPI)-linked membrane glycoprotein also known as LPS receptor. CD14 is expressed at high levels on monocytes and macrophages, and at lower levels on granulocytes. Some dendritic cell populations such as interfollicular dendritic cells, reticular dendritic cells, and Langerhans cells have also been reported to express CD14. As a high-affinity receptor for LPS, CD14 is involved in the clearance of gram-negative pathogens, and in the upregulation of adhesion molecules and expression of cytokines in monocytes and neutrophils.

Antigen References:

1. Stocks S, *et al.* 1990. *Biochem. J.* 268:275.
2. Wright S, *et al.* 1990. *Science* 249:1434.

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