

**PE anti-human CD14**

**Catalog # / Size:** 2109030 / 100 tests  
2109025 / 25 tests

2109250 / 100 µg

**Clone:** M5E2

**Isotype:** Mouse IgG2a, κ

**Immunogen:** Full-length human CD14 protein

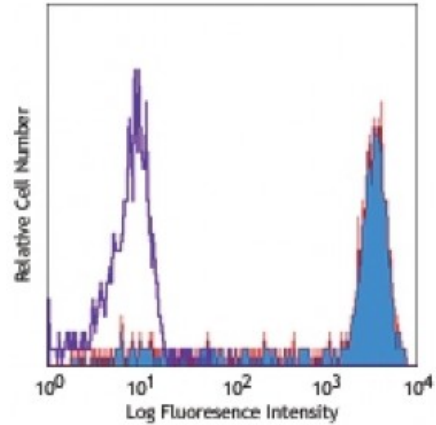
**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with PE under optimal conditions. The solution is free of unconjugated PE and unconjugated antibody.

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

**Workshop Number:** III 329

**Concentration:** microg sizes: 0.2 mg/ml  
test sizes: lot-specific



Human peripheral blood monocytes stained with M5E2 PE

**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 using the microg size, the suggested use of this reagent is ≤1.0 microg per million cells in 100 microL volume. **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:** 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 stimulation<sup>4</sup>, and immunofluorescence microscopy<sup>5</sup>. 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).

**Application References:**

- McMichael A, *et al.* 1987. Leucocyte Typing III. Oxford University Press. New York.
- Knapp W, *et al.* Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York.
- Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
- Power CP, *et al.* 2004. *J. Immunol.* 173:5229. (Block)
- Williams KC, *et al.* 2001. *J. Exp. Med.* 193:905. (IF)

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. Sriuswan S, *et al.* 2014. *PLoS One.* 9:110321. [PubMed](#)
  10. Fisher JP *et al.* 2014. *Clin Cancer Res.* 20:5720. [PubMed](#)
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**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.