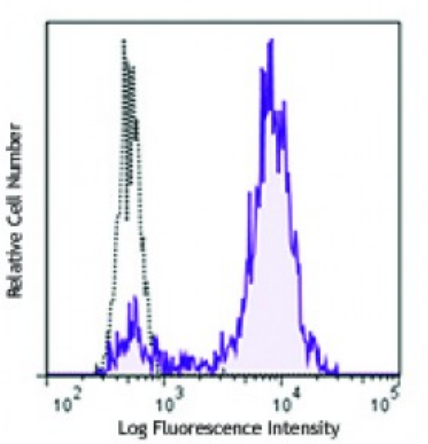
SONY

Product Data Sheet

Pacific Blue™ anti-human CD14

Catalog # / Size:	2109075 / 100 µg 2109080 / 25 µg 2109140 / 100 tests
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 Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.
Formulation:	test size: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA). microg sizes: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Workshop Number:	III 329
Concentration:	test size: lot-specific; microg sizes: 0.5 mg/ml



Human peripheral blood monocytes stained with clone M5E2 Pacific Blue™ or with an isotype control (open histogram).

Applications:

Applications:	Flow Cytometry
Recommended Usage:	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. **For test size**, 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 sizes**, the suggested use of this reagent is ≤ 2.0 microg per 10^6 cells in 100 microL volume or 100 microL of whole blood. It is highly recommended that the reagent be titrated for optimal performance for each application. * Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.
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).
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.

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. (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. Tungatt K, *et al.* 2015. *J Immunol.* 194:463. PubMed
10. Li H, *et al.* 2015. *J Infect Dis.* 211:1717. PubMed

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.