Technical Data Sheet

# Alexa Fluor® 488 Mouse Anti-Human CD14

## Product Information

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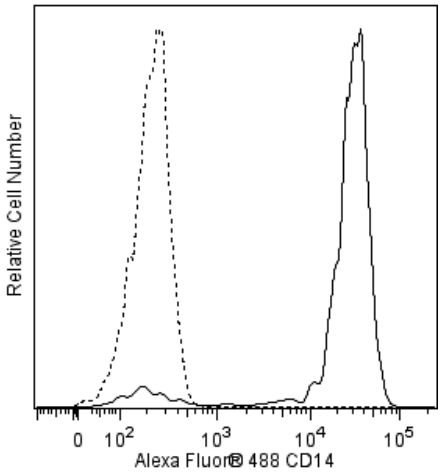
|---|---|
| **Material Number:** | **562689** |
| **Alternate Name:** | LPS receptor; LPS-R; Myeloid cell-specific leucine-rich glycoprotein |
| **Size:** | 100 tests |
| **Vol. per Test:** | 5 µl/test |
| **Clone:** | MφP9 |
| **Immunogen:** | Human Monocytes |
| **Isotype:** | Mouse (BALB/c) IgG2b, κ |
| **Reactivity:** | QC Testing: Human |
| **Workshop:** | I M35 |
| **Storage Buffer:** | Aqueous buffered solution containing BSA and ≤0.09% sodium azide. |

## Description

The MφP9 monoclonal antibody specifically binds to human CD14, a 53-55 kDa glycosylphosphatidylinositol (GPI)-anchored and single chain glycoprotein expressed at high levels on monocytes. Additionally, this CD14-specific antibody reacts with interfollicular macrophages, reticular dendritic cells and some Langerhans cells. CD14 has been identified as a high affinity cell-surface receptor for complexes of lipopolysaccharide (LPS) and serum LPS-binding protein, LPB. The purified antibody is suitable for staining acetone-fixed, frozen tissue sections.




***Flow cytometric analysis of CD14 expression on human peripheral blood monocytes.*** *Whole blood was stained with either Alexa Fluor® 488 Mouse Anti-Human CD14 antibody (Cat. No. 562689; solid line histogram) or with an Alexa Fluor® 488 Mouse IgG2b, κ Isotype Control (Cat. No. 558716; dashed line histogram). The erythrocytes were lysed with BD Pharm Lyse™ Lysing Buffer (Cat. No. 555899). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of viable monocytes. Flow cytometry was performed using a BD™ LSR II Flow Cytometer System.*

## Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated to Alexa Fluor® 488 under optimum conditions, and unreacted Alexa Fluor® 488 was removed.

## Application Notes

**Application**

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| Flow cytometry | Routinely Tested |

## Suggested Companion Products

| Catalog Number | Name | Size | Clone |
|---|---|---|---|
| 554656 | Stain Buffer (FBS) | 500 ml | (none) |
| 555899 | Lysing Buffer | 100 ml | (none) |
| 558716 | Alexa Fluor® 488 Mouse IgG2b, κ Isotype Control | 50 tests | 27-35 |

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

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| 877.232.8995 | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995 |

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3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
5. The Alexa Fluor®, Pacific Blue™, and Cascade Blue® dye antibody conjugates in this product are sold under license from Molecular Probes, Inc. for research use only, excluding use in combination with microarrays, or as analyte specific reagents. The Alexa Fluor® dyes (except for Alexa Fluor® 430), Pacific Blue™ dye, and Cascade Blue® dye are covered by pending and issued patents.
6. Alexa Fluor® 488 fluorochrome emission is collected at the same instrument settings as for fluorescein isothiocyanate (FITC).
7. Alexa Fluor® is a registered trademark of Molecular Probes, Inc., Eugene, OR.
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

## References


Dimitriu-Bona A, Burmester GR, Kelley K, Winchester RJ. Human mononuclear phagocyte differentiation antigens: Definition by monoclonal antibodies, cell distribution, and in vitro modulation. In: Bernard A, Boumsell L, Dausset J, Milstein C, Schlossman SF, ed. *Leukocyte Typing.* New York: Springer-Verlag; 1984:434-437. (Clone-specific: Flow cytometry)

Dimitriu-Bona A, Burmester GR, Waters SJ, Winchester RJ. Human mononuclear phagocyte differentiation antigens. I. Patterns of antigenic expression on the surface of human monocytes and macrophages defined by monoclonal antibodies. *J Immunol.* 1983; 130(1):145-152. (Immunogen: Flow cytometry, Immunofluorescence)

Goyert SM, Ferrero E. Biochemical analysis of myeloid antigens and cDNA expression of gp55 (CD14). In: McMichael AJ, ed. *Leucocyte Typing III: White Cell Differentiation Antigens.* New York, NY: Oxford University Press;; 1987:613-619. (Biology)

Wright SD, Ramos RA, Tobias PS, Ulevitch RJ, Mathison JC. CD14, a receptor for complexes of lipopolysaccharide (LPS) and LPS binding protein. *Science.* 1990; 249(4975):1431-1433. (Biology)



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