Technical Data Sheet

BUV395 Mouse Anti-Human CD14

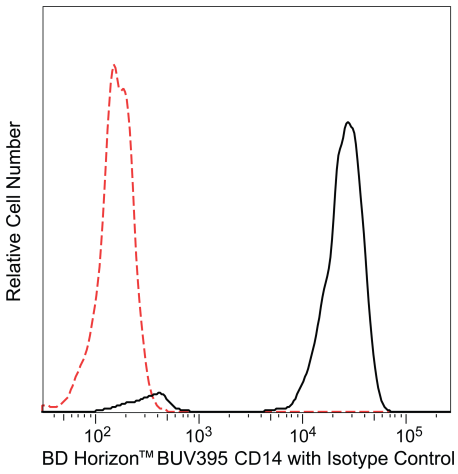
Product Information

Material Number:	**563561**
Alternate Name:	LPS receptor; LPS-R; Myeloid cell-specific leucine-rich glycoprotein
Size:	100 tests
Vol. per Test:	5 µl
Clone:	MφP9 (also known as MφP-9)
Immunogen:	Human Monocytes
Isotype:	Mouse (BALB/c) IgG2b, κ
Reactivity:	QC Testing: Human
Workshop:	I M35; II M67; III M337; IV M301
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.

The antibody was conjugated to BD Horizon™ BUV395 which has been exclusively developed by BD Biosciences as an optimal dye for use on a 355 nm laser equipped instrument. With an Ex Max at 348 nm and an Em Max at 395 nm, this dye has virtually no spillover into any other detector. BD Horizon™ BUV395 can be excited with a 355 nm laser and detected with a 379/28 filter.



Flow cytometric analysis of CD14 expression on human peripheral blood monocytes. *Human whole blood was stained with the BD Horizon™ BUV395 Mouse Anti-Human CD14 antibody (Cat. No. 563561/563562; solid line histogram) or with a BD Horizon™ BUV395 Mouse IgG2b, κ Isotype Control (Cat. No. 563558; dashed line histogram). The erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of intact monocytes. Flow cytometric analysis 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 with BD Horizon™ BUV395 under optimum conditions, and unconjugated antibody and free BD Horizon™ BUV395 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
563558	BUV395 Mouse IgG2b, κ Isotype Control	50 µg	27-35
563562	BUV395 Mouse Anti-Human CD14	25 tests	MφP9
349202	BD FACS™ Lysing Solution	100 ml	(none)

Product Notices

1. An isotype control should be used at the same concentration as the antibody of interest.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. 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.
4. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
5. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
6. 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).

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. (Immunogen: Flow cytometry, Immunofluorescence)

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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