

Technical Data Sheet

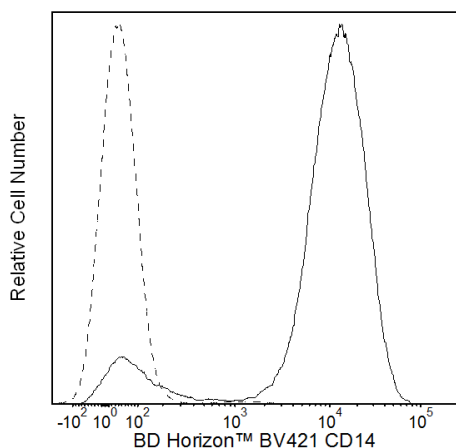
BV421 Mouse Anti-Human CD14**Product Information**

Material Number:	563744
Alternate Name:	LPS receptor; LPS-R; Myeloid cell-specific leucine-rich glycoprotein
Size:	25 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™ BV421 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 407-nm and Em Max at 421-nm, BD Horizon™ BV421 can be excited by the violet laser and detected in the standard Pacific Blue™ filter set (eg, 450/50-nm filter). BD Horizon™ BV421 conjugates are very bright, often exhibiting a 10 fold improvement in brightness compared to Pacific Blue™ conjugates.



Flow cytometric analysis of CD14 expression on human peripheral blood monocytes. Human whole blood was stained with either BD Horizon™ BV421 Mouse Anti-Human CD14 antibody (Cat. No. 563743/563744; solid line histogram) or BD Horizon™ BV421 Mouse IgG2b, κ Isotype Control (Cat. No. 562748; 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 viable 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™ BV421 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV421 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)
562748	BV421 Mouse IgG2b, κ Isotype Control	50 μ g	27-35
555899	Lysing Buffer	100 ml	(none)
349202	BD FACSTM Lysing Solution	100 ml	(none)

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- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
5. Pacific Blue™ is a trademark of Molecular Probes, Inc., Eugene, OR.
6. Brilliant Violet™ 421 is a trademark of Sirigen.
7. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
8. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

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, Bousmell 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)

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