

Technical Data Sheet

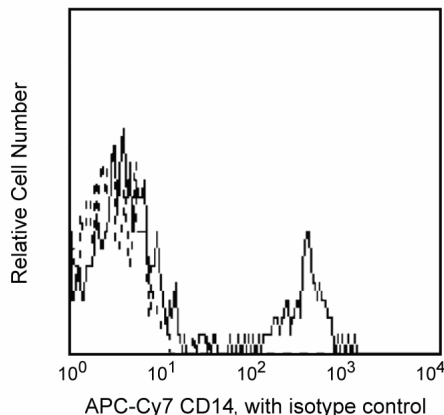
APC-Cy™7 Mouse Anti-Human CD14

Product Information

Material Number:	561709
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 CD14. CD14 is 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. This antibody is suitable for staining acetone-fixed, frozen tissue sections.



Flow cytometric analysis of CD14 expression on human peripheral blood monocytes. Human whole blood was stained with either APC-Cy™7 Mouse IgG2b, κ Isotype Control (Cat. No. 558061 ; dashed line histogram) or APC-Cy7 Mouse Anti-Human CD14 antibody (Cat. No. 557831/561709; solid line histogram). Erythrocytes were lysed with BD FACS™ Lysing Solution (Cat. No. 349202). Fluorescent histograms were derived from gated events with the forward and side light-scatter characteristics of intact monocyte populations.

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 APC-Cy7 under optimum conditions, and unconjugated antibody and free APC-Cy7 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)
558061	APC-Cy™7 Mouse IgG2b, κ Isotype Control	100 Tests	27-35
554657	Stain Buffer (BSA)	500 mL	(none)
555899	Lysing Buffer	100 mL	(none)
349202	BD FACS™ Lysing Solution	100 mL	(none)
557831	APC-Cy™7 Mouse Anti-Human CD14	100 Tests	MφP9

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Product Notices

1. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
2. APC-Cy7 is a tandem fluorochrome composed of Allophycocyanin (APC), which is excited by laser lines between 595 and 647 nm and serves as an energy donor, coupled to the cyanine dye Cy7™, which acts as an energy acceptor and fluoresces at 780 nm. BD Biosciences Pharmingen has maximized the fluorochrome energy transfer in APC-Cy7, thus maximizing its fluorescence emission intensity, minimizing residual emission from APC, and minimizing required electronic compensation in multilaser-laser flow cytometry systems. Note: Although every effort is made to minimize the lot-to-lot variation in residual emission from APC, it is strongly recommended that every lot be tested for differences in the amount of compensation required and that individual compensation controls are run for each APC-Cy7 conjugate.
3. APC-Cy7 tandem fluorochrome emission is collected in a detector for fluorescence wavelengths of 750 nm and higher.
4. Please observe the following precautions: Absorption of visible light can significantly alter the energy transfer occurring in any tandem fluorochrome conjugate; therefore, we recommend that special precautions be taken (such as wrapping vials, tubes, or racks in aluminum foil) to prevent exposure of conjugated reagents, including cells stained with those reagents, to room illumination.
5. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
6. 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.
7. 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).
8. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
9. Warning: Some APC-Cy7 and PE-Cy7 conjugates show changes in their emission spectrum with prolonged exposure to formaldehyde. If you are unable to analyze fixed samples within four hours, we recommend that you use BD™ Stabilizing Fixative (Cat. No. 338036).
10. An isotype control should be used at the same concentration as the antibody of interest.
11. Cy is a trademark of GE Healthcare.

References

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