Technical Data Sheet

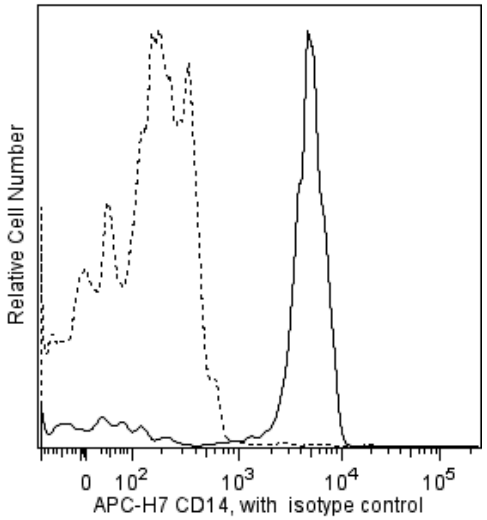
APC-H7 Mouse anti-Human CD14

Product Information

Material Number:	**560270**
Size:	25 Tests
Vol. per Test:	5 µl
Clone:	MφP9
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Testing: Human
Workshop:	IV M301
Storage Buffer:	Aqueous buffered solution containing BSA, protein stabilizer, and ≤0.09% sodium azide.

Description

Reacts with a 53-55 kDa glycosylphosphatidylinositol (GPI)-anchored and single chain glycoprotein expressed at high levels on monocytes. Additionally, CD14 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 APC-H7 anti-human CD14 on human monocytes. *Whole blood was stained with APC-H7 anti-human CD14 (clone MΦP9) and compared to whole blood stained with a APC-H7 mouse IgG2b isotype control (clone 27-35, Cat. No. 560183). The isotype control is represented by a dashed line and the APC-H7 anti-human CD14 by the solid line. Monocytes were selected by light scatter profile. Flow cytometry was performed on a BD™ LSR II flow cytometry 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 APC-H7 under optimum conditions, and unconjugated antibody and APC-H7 were removed.

Application Notes

Application

Flow cytometry	Routinely Tested

Suggested Companion Products

Catalog Number	Name	Size	Clone
560183	APC-H7 Mouse IgG2b, κ Isotype Control	0.1 mg	27-35
560180	APC-H7 Mouse anti-Human CD14	100 Tests	MφP9
554656	Stain Buffer (FBS)	500 mL	(none)

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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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. BD APC-H7 is a tandem conjugate and an analog of APC-Cy7 with the same spectral properties. It has decreased intensity but it is engineered for greater stability and less spillover in the APC channel and consequently offers better performance than APC-Cy7. It has an absorption maximum of approximately 650 nm. When excited by light from a red laser, the APC fluorochrome can transfer energy to the cyanine dye, which then emits at a longer wavelength. The resulting fluorescent emission maximum is approximately 767 nm. BD recommends that a 750-nm longpass filter be used along with a red-sensitive detector such as the Hamamatsu R3896 PMT. As with APC-Cy7 special filters are required when using APC-H7 in conjunction with APC.
   Note: Although our APC-H7 products demonstrate higher lot-to lot consistency than other APC tandem conjugate products, and 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-H7 conjugate.
   Note: Cy is a trademark of Amersham Biosciences Limited.
4. Although BD APC-H7 is engineered to minimize spillover to the APC channel and is more stable and less affected by light, temperature, and formaldehyde-based fixatives, compared to other APC-cyanine tandem dyes, it is still good practice to minimize as much as possible, any light, temperature and fixative exposure when working with all fluorescent conjugates.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
8. An isotype control should be used at the same concentration as the antibody of interest.

References

Knapp W, Dörken B, Gilks WR, et al, ed. *Leucocyte Typing IV.* New York, NY: Oxford University Press; 1989:1-1182. (Clone-specific)
McMichael AJ, Beverly PCL, Gilks W, et al, ed. *Leukocyte Typing III: White Cell Differentiation Antigens.* New York: Oxford University Press; 1987. (Biology)
Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leucocyte Typing V.* New York: Oxford University Press; 1995. (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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