

Store at
4°C

CD14 (61D3) Mouse mAb (violetFluor™ 450 Conjugate)

#82944



Cell Signaling
TECHNOLOGY®

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Entrez-Gene ID #929
UniProt ID #P08571

New 10/17

For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
F
Endogenous

Species Cross-Reactivity
H

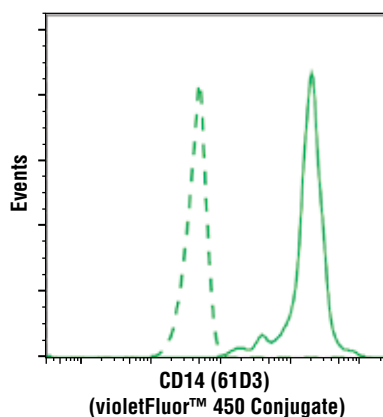
Isotype
Mouse IgG1

Description: This Cell Signaling Technology antibody is conjugated to violetFluor™ 450 and tested in-house for direct flow cytometry analysis in human cells.

Background: CD14 is a leucine-rich repeat-containing pattern recognition receptor with expression largely restricted to the monocyte/macrophage cell lineage (1). Research studies have shown that CD14 is a bacterial lipopolysaccharide (LPS) binding glycoprotein, expressed as either a GPI-linked membrane protein or a soluble plasma protein (2). LPS induces an upregulation of GPI-linked CD14 expression, which facilitates TLR4 signaling and macrophage activation in response to bacterial infection (3-5). The 61D3 antibody is widely used to identify cells of the monocyte/macrophage lineage (6).

Specificity/Sensitivity: CD14 (61D3) Mouse mAb (violetFluor™ 450 Conjugate) recognizes endogenous levels of total CD14 protein. This antibody detects an epitope within the extracellular domain.

Source/Purification: This monoclonal antibody was purified from tissue culture supernatant via affinity chromatography. The purified antibody was conjugated under optimal conditions, with unreacted dye removed from the preparation.



Flow cytometric analysis of live human peripheral blood mononuclear cells using CD14 (61D3) Mouse mAb (violetFluor™ 450 Conjugate) (solid line) compared to concentration-matched Mouse (MOPC-21) mAb IgG1 Isotype Control (violetFluor™ 450 Conjugate) #40282 (dashed line). Analysis was performed on cells in the monocyte gate.

Storage: Supplied in 10 mM NaH₂PO₄, 150 mM NaCl, 0.09% Na₂S₂O₃, 0.1% gelatin, pH7.2. This product is stable for 6 months when stored at 4°C. *Do not aliquot the antibody. Protect from light. Do not freeze.*

Recommended Antibody Dilutions:

Flow Cytometry 1:20

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

- (1) Wright, S.D. et al. (1991) *J Exp Med* 173, 1281-6.
- (2) Ziegler-Heitbrock, H.W. and Ulevitch, R.J. (1993) *Immunol Today* 14, 121-5.
- (3) Suzuki, M. et al. (2009) *J Immunol* 182, 6485-93.
- (4) Pugin, J. et al. (1994) *Immunity* 1, 509-16.
- (5) Zaroni, I. et al. (2011) *Cell* 147, 868-80.
- (6) Flora, P.K. and Gregory, C.D. (1994) *Eur J Immunol* 24, 2625-32.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.