Anti-Human CD14 Antibody, Clone MoP9, FITC

Antibodies

Mouse monoclonal IgG2b antibody against human, rhesus, cynomolgus CD14, FITC-conjugated

Catalog #60124FI 100 tests 20 µL/test

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Product Description

The MoP9 antibody reacts with CD14, a 53 - 55 kDa GPI-anchored transmembrane glycoprotein expressed at high levels on the surface of peripheral blood monocytes and macrophages, and at lower levels on granulocytes. An approximate 10-fold difference in expression levels between monocytes/macrophages and granulocytes makes CD14 a useful marker for distinguishing these cell populations. CD14 is also found on tissue macrophages, Langerhans cells and dendritic cells. CD14 functions as a high-affinity receptor for complexes of lipopolysaccharide (LPS) and serum LPS-binding protein and modulates LPS-dependent signal transduction during the immune response to gram-negative pathogens by acting as a co-receptor for TLR 4 and MD-2. This triggers activation of NF-kappa-B, cytokine secretion, and induction of the inflammatory response. Two soluble forms of CD14 have also been described (~48 and ~55 kDa).

Target Antigen Name:	CD14
Alternative Names:	LPS receptor
Gene ID:	929
Species Reactivity:	Human, Rhesus, Cynomolgus, Chimpanzee, Hamadyras baboon, Sooty mangabey, Squirrel monkey
Host Species:	Mouse (BALB/c)
Clonality:	Monoclonal
Clone:	MoP9
Isotype:	IgG2b, kappa
Immunogen:	Human monocytes
Conjugate:	FITC

Applications

Verified:	FC
Reported:	FC, IF, IHC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered saline containing 0.1% sodium azide and gelatin
Purification:	The antibody was purified by column chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	For flow cytometry the suggested use of this antibody is 20 µL per 1 x 10^6 cells in 100 µL volume. It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

1. Carpenter RS et al. (2015) Traumatic spinal cord injury in mice with human immune systems. Exp Neurol 271: 432–44. (FC, IHC)
2. Beliakova-Bethell N et al. (2014) The effect of cell subset isolation method on gene expression in leukocytes. Cytometry A 85(1): 94–104. (FC)
3. Davey MS et al. (2014) Microbe-specific unconventional T cells induce human neutrophil differentiation into antigen cross-presenting cells. J Immunol 193(7): 3704–16. (FC)
4. de Jong PR et al. (2012) STAT3 regulates monocyte TNF-alpha production in systemic inflammation caused by cardiac surgery with cardiopulmonary bypass J. H. Fritz, ed. PLoS One 7(4): e35070. (FC)
5. Rolland A et al. (2006) The envelope protein of a human endogenous retrovirus-W family activates innate immunity through CD14/TLR4 and promotes Th1-like responses. J Immunol 176(12): 7636–44. (FC, IF)

Please refer to the Safety Data Sheet (SDS) for hazard information.