**Anti-Human CD14 Antibody,
Clone M5E2, Alexa Fluor® 488**

Antibodies

Mouse monoclonal IgG2a antibody
against human, rhesus, cynomolgus
CD14, Alexa Fluor® 488-conjugated

Catalog	#60004AD	100 Tests	5 µL/test
	#60004AD.1	25 Tests	5 µL/test

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Product Description

The M5E2 antibody reacts with CD14, an ~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 ~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).

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Target Antigen Name:	CD14
Alternative Names:	LPS receptor
Gene ID:	929
Species Reactivity:	Human, Rhesus, Cynomolgus, Chimpanzee, Capuchin Monkey, Common Marmoset, Cotton-topped Tamarin, Pigtailed Macaque, Squirrel Monkey, Cow, Dog, Pig, Sheep
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	M5E2
Isotype:	IgG2a, kappa
Immunogen:	Full-length human CD14 protein
Conjugate:	Alexa Fluor® 488

Applications

Verified:	FC
Reported:	FC
Special Applications:	This antibody clone has been verified for purity assessments of cells isolated with EasySep™ kits, including EasySep™ Human Myeloid Positive Selection Kit (Catalog #18653) and EasySep™ Human CD14 Positive Selection Kit (Catalog #18058), as well as EasySep™ HLA Whole Blood CD33 Positive Selection Kit (Catalog #18287HLA), EasySep™ HLA Whole Blood Myeloid Positive Selection Kit (Catalog #18683HLA), and EasySep™ Human Buffy Coat CD14 Positive Selection Kit (Catalog #18088).

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

Properties

Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) bovine serum albumin
Purification:	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions. The solution is free of unconjugated Alexa Fluor® 488.
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 5 µL per 1 x 10^6 cells in 100 µL volume or per 100 µL of whole blood. It is recommended that the antibody be titrated for optimal performance for each application.

Data
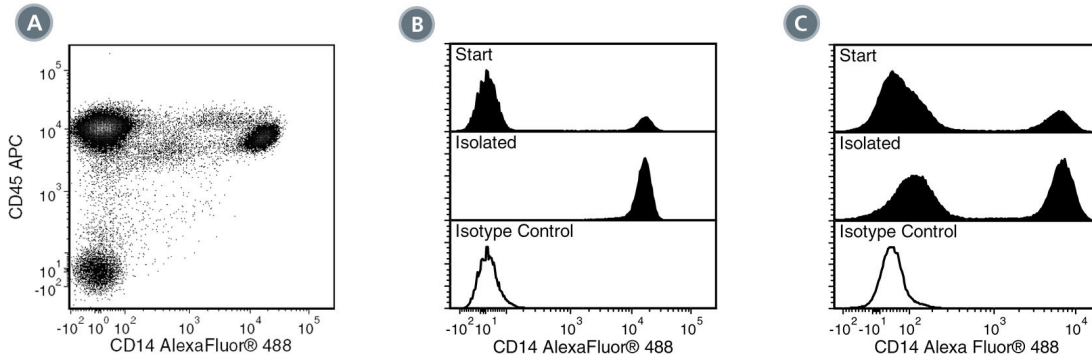
(A) Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD14 Antibody, Clone M5E2, Alexa Fluor® 488 and Anti-Human CD45 Antibody, Clone HI30, APC (Catalog #60018AD).

(B) Flow cytometry analysis of human PBMCs processed with the EasySep™ Human CD14 Positive Selection Kit and labeled with Anti-Human CD14 Antibody, Clone M5E2, Alexa Fluor® 488. Histograms show labeling of PBMCs (Start) and isolated cells (Isolated). Labeling of start cells with Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, Alexa Fluor® 488 (Catalog #60071AD) is shown (solid line histogram).

(C) Flow cytometry analysis of human whole blood nucleated cells processed with the EasySep™ HLA Whole Blood CD33 Positive Selection Kit and labeled with Anti-Human CD14 Antibody, Clone M5E2, Alexa Fluor® 488. Histograms show labeling of whole blood nucleated cells (Start) and isolated cells (Isolated). Labeling of start cells with Mouse IgG2a, kappa Isotype Control Antibody, Clone MOPC-173, Alexa Fluor® 488 is shown (solid line histogram).

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

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