

# Monoclonal Antibody to CD14 - PE

Alternate names: Monocyte differentiation antigen CD14, Myeloid cell-specific leucine-rich glycoprotein

Catalog No.: SM1066R Quantity: 100 Tests

Background: CD14 is a single copy gene encoding 2 protein forms: a 50 to 55 kDa

glycosylphosphatidylinositol anchored membrane protein (mCD14) and a monocyte or liver derived soluble serum protein (sCD14) that lacks the anchor. Both molecules are critical for lipopolysaccharide (LPS) dependent signal transduction, and sCD14 confers LPS sensitivity to cells lacking mCD14. Increased sCD14 levels are associated with inflammatory infectious diseases and high mortality in gram negative shock. CD14 also appears to be involved in clearance of gram-negative bacteria via its high affinity binding to LPS-LPB complexes.

Uniprot ID: <u>P08571</u>
NCBI: <u>9606</u>

Host / Isotype: Mouse / IgG2a

Clone: Tük4

Immunogen: CD14 Human

Format: State: Lyophilized purified IgG fraction

Purification: Affinity Chromatography on Protein G

Buffer System: PBS

Preservatives: 0.09% Sodium Azide Stabilizers: 1% BSA, 5% Sucrose Label: PE – R. Phycoerythrin

Reconstitution: Restore with 1 ml distilled water

**Applications:** Flow Cytometry: Use 10 μl of Neat-1/10 diluted antibody to label 10<sup>6</sup> cells or 100 μl whole

blood.

Other applications not tested. Optimal dilutions are dependent on conditions and should

be determined by the user.

Specificity: This antibody recognises the CD14 cell surface antigen, expressed strongly by most

peripheral blood monocytes and weakly on granulocytes.

Clone TÜK4 has been shown to block SDF-induced chemotaxis of U937 cells in a dose-dependent manner. The use of SM1066LE is recommended for this purpose. **Species:** Human, Cynomolgus monkey, Lama, Sheep, Goat, Bovine, Pig, Dog, Cat, Mink,

Rabbit.

Other species not tested.

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# Storage:

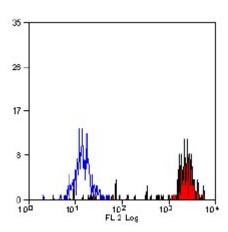
Prior to and following reconstitution store the antibody undiluted at 2-8°C.

### DO NOT FREEZE!

This product is photosensitive and should be protected from light. Shelf life: one year from despatch.

- General References: 1. Yoshino, N. et al. (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of Cynomolgus monkeys (Macaca fascicularis) by using anti-human cross-reactive antibodies. Exp. Anim. 49: 97-110
  - 2. Jacobsen, C.N. et al. (1993) Reactivities of 20 anti-human monoclonal antibodies with leucocytes from ten different animal species. Vet. Immunol. Immunopathol. 39: 461-466.
  - 3. Sopp, P. et al. (1997) Cross-reactivity of monoclonal antibodies to defined human leucocyte differentiation antigens with bovine cells. Vet. Immunol. Immunopathol. 56: 11-25.
  - 4. Arriens, M.A. et al. (1996) Cross reactivity of anti-human CD monoclonal antibodies with porcine leukocytes. Vet. Immunol. Immunopathol. 54: 113-114
  - 5. Yang, H. et al. (2003) Antibody to CD14 like CXCR4-specific antibody 12G5 could inhibit CXCR4-dependent chemotaxis and HIV Env-mediated cell fusion. Immunol. Letters 88: 27-30.
  - 6. Yang, H. et al. (2003) Antibody to CD14 like CXCR4-specific antibody 12G5 could inhibit CXCR4-dependent chemotaxis and HIV Env-mediated cell fusion. Immunol. Letters 88:
  - 7. Yoshino, N. et al. (2000) Upgrading of flow cytometric analysis for absolute counts, cytokines and other antigenic molecules of Cynomolgus monkeys (Macaca fascicularis) by using anti-human cross-reactive antibodies. Exp. Anim. 49 (2): 97-110.
  - 8. Jacobsen, C.N. et al. (1993) Reactivities of 20 anti-human monoclonal antibodies with leucocytes from ten different animal species. Vet. Immunol. Immunopathol. 39: 461-466.
  - 9. Martel, C.J. & Aasted, B. (2009) Characterization of antibodies against ferret immunoglobulins, cytokines and CD markers. Vet Immunol Immunopathol. 132:109-15.

## **Pictures:**



Staining of human peripheral blood monocytes probed with Mouse anti Human CD14 - RPE