

## anti-human CD14 (no azide)

monoclonal antibody MEM-18 to human CD14

Cat-No: **21270140**

100 µg in 100 µl

**Clone:** MEM-18

**Specificity:** The antibody MEM-18 reacts with CD14, a 53-55 kDa GPI (glycosylphosphatidylinositol)-linked membrane glycoprotein expressed on monocytes, macrophages and weakly on granulocytes; also expressed by most tissue macrophages. In human, the epitope recognized by MEM-18 is located between amino acids 57-64.

**HLDA III; WS Code M 253, HLDA IV; WS Code M 314, HLDA V; WS Code M MA087, HLDA VI; WS Code M MA95**

**Immunogen:** A crude mixture of human urinary proteins precipitated by ammonium sulphate from the urine of a patient suffering from proteinuria.

**Isotype subclass:** Mouse IgG1

**Form:** Purified from ascites by protein-A affinity chromatography.

**Purity:** > 98% (by SDS-PAGE)

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS (sterile), (pH 7.4)

**Expiration date:** The reagent is stable until the expiry date stated on the vial label

**Storage conditions:** Store at 4°C. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.

**Application:** Flow Cytometry

Immunoprecipitation

Western Blotting - *Application note:* Non-reducing conditions.

ELISA

Functional Application

**Background:** CD14 is a 55 kDa GPI-anchored glycoprotein, constitutively expressed on the surface of mature monocytes, macrophages, and neutrophils, where serves as a multifunctional lipopolysaccharide receptor; it is also released to the serum both as a secreted and enzymatically cleaved GPI-anchored form. CD14 binds lipopolysaccharide molecule in a reaction catalyzed by lipopolysaccharide-binding protein (LBP), an acute phase serum protein. The soluble sCD14 is able to discriminate slight structural differences between lipopolysaccharides and is important for neutralization of serum allochthonous lipopolysaccharides by reconstituted lipoprotein particles. CD14 affects allergic, inflammatory and infectious processes.

**References:** \*Lodrup Carlsen KC, Granum B: Soluble CD14: role in atopic disease and recurrent infections, including otitis media. *Curr Allergy Asthma Rep.* 2007 Nov;7(6):436-43.

\*Asai Y, Makimura Y, Kawabata A, Ogawa T: Soluble CD14 Discriminates Slight Structural Differences between Lipid As That Lead to Distinct Host Cell Activation. *J Immunol.* 2007 Dec 1;179(11):7674-83.

\*Fernández-Real JM, Broch M, Richart C, Vendrell J, López-Bermejo A, Ricart W: CD14 monocyte receptor, involved in the inflammatory cascade, and insulin sensitivity. *J Clin Endocrinol Metab.* 2003 Apr;88(4):1780-4.

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