

## anti-human CD14 APC-conjugated

**APC** - conjugated monoclonal antibody MEM-18 to human CD14

Cat-No: **21270146**

500 µl

**Clone:** MEM-18 (mouse)

**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**

**Isotype subclass:** Mouse IgG1

**Form:** The purified antibody is conjugated with cross-linked Allophycocyanin (APC) under optimum conditions. The reagent is adjusted for direct use. No reconstitution is necessary.

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

**Physical state:** Liquid

**Buffer/Additives/Preservative:** PBS containing 1% BSA and 0.09% sodium azide (pH 7.2)

**Storage conditions:** Store at 4 °C. Avoid prolonged exposure to light.

**Application:** Flow Cytometry

**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.

**Warning:** Sodium azide is harmful if swallowed (R22). Keep out of reach of children (S2). Keep away from food, drink and animal feeding stuff (S13). Wear suitable protective clothing (S36). If swallowed, seek medical advice immediately and show this container or label (S46). Contact with acids liberates very toxic gas (R32). Azide compounds should be flushed with large volumes of water during disposal to avoid deposits in lead or copper plumbing where explosive conditions can develop..

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