

11-304-C100

Monoclonal Antibody to CD14 Purified Antibody (0.1 mg)

Clone:	B-A8
Isotype:	Mouse IgG1
Specificity:	The antibody B-A8 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.
Regulatory Status:	RUO
Immunogen:	Human monocytes
Species Reactivity:	Human
Application:	ELISA The antibody B-A8 has been tested as the capture antibody in a sandwich ELISA for analysis of human CD14 in combination with antibody MEM-18 (cat. no. 1B-212-C100). Immunohistochemistry (paraffin sections) Recommended dilution: 2-10 µg/ml Positive tissue: PML brain sections Application note: Positive staining on human PML brain sections was mainly observed on monocytes in the luminal side of brain blood vessels, and on some perivascular cells adjacent to medium-sized vessels. Heat retrieval of antigen is recommended. Flow Cytometry Recommended dilution: 1 µg/ml
Purity:	> 95% (by SDS-PAGE)
Purification:	Purified by protein-A affinity chromatography
Concentration:	1 mg/ml
Storage Buffer:	Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4
Storage / Stability:	Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial label.
Expiration:	See vial label
Lot Number:	See vial label
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.

For laboratory research only, not for drug, diagnostic or other use.

**Antibodies****References:**

- *Juan TS, Hailman E, Kelley MJ, Wright SD, Lichenstein HS: Identification of a domain in soluble CD14 essential for lipopolysaccharide (LPS) signaling but not LPS binding. *J Biol Chem.* 1995 Jul 21;270(29):17237-42.
- *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.
- *Goyert SM, Ferrero E, Rettig WJ, Yenamandra AK, Obata F, Le Beau MM: The CD14 monocyte differentiation antigen maps to a region encoding growth factors and receptors. *Science.* 1988 Jan 29;239(4839):497-500.
- *Kuusniemi AM, Lapatto R, Holmberg C, Karikoski R, Rapola J, Jalanko H.: Kidneys with heavy proteinuria show fibrosis, inflammation, and oxidative stress, but no tubular phenotypic change. *Kidney Int.* 2005 Jul;68(1):121-32.
- *Yates J, Rovis F, Mitchell P, Afzali B, Tsang JY, Garin M, Lechler RI, Lombardi G, Garden OA: The maintenance of human CD4+ CD25+ regulatory T cell function: IL-2, IL-4, IL-7 and IL-15 preserve optimal suppressive potency in vitro. *Int Immunol.* 2007 Jun;19(6):785-99.
- *Wiendl H, Mitsdoerffer M, Schneider D, Melms A, Lochmuller H, Hohlfeld R, Weller M: Muscle fibres and cultured muscle cells express the B7.1/2-related inducible co-stimulatory molecule, ICOSL: implications for the pathogenesis of inflammatory myopathies. *Brain.* 2003 May;126(Pt 5):1026-35.
- *Matasić R, Dietz AB, Vuk-Pavlović S: Dexamethasone inhibits dendritic cell maturation by redirecting differentiation of a subset of cells. *J Leukoc Biol.* 1999 Dec;66(6):909-14.

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