

Cat # RP-965

Recombinant Mouse CD14

Size:  2 ug

5 ug

**Synonyms:**

Monocyte differentiation antigen CD14, Myeloid cell-specific leucine-rich glycoprotein, CD14.

**Introduction:**

CD14 (also known lipopolysaccharide (LPS) receptor) is expressed strongly on monocytes and macrophage and weakly on the surface of neutrophils. CD14 is anchored to cells by linkage to glycosylphosphatidylinositol (GPI) and functions as a high affinity receptor for complexes of LPS and LPS binding protein (LBP). Soluble CD14, also binding to LPS, acts at physiological concentration as an LPS agonist and has, at higher concentrations, an LPS antagonizing effect in cell activation. CD14 has been shown to bind apoptotic cells.

**Description:**

The CD14 is produced from mouse CD14 transfected CHO-cells in serum free medium. Before transfection the complete mouse CD14-cDNA was amplified by PCR and cloned into expression vector p-POL-DHFR. The recombinant mouse CD-14 was purified by His-tag and controlled by SDS page. The myeloid differentiation antigen CD14 acts as the major receptor for bacterial LPS. The dominant form of the recombinant wildtype CD14 is the 50 kDa protein.

**Source:**

CHO-cells

**Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

**Formulation:**

CD14 was lyophilized from a concentrated protein solution (1 mg/ml) containing phosphate-buffered saline, pH 7.2.

**Solubility:**

It is recommended to reconstitute the lyophilized Mouse CD14 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:**

Lyophilized Mouse CD14 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Mouse CD14 should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

**Applications:**

- ELISA
- Inhibition Assays
- Western Blotting

**Characterization:**

On SDS-PAGE commassie blue stained gel, the 95% purified recombinant protein shows a band at 50 kDa.

**References:**

Grunwald, U., X. Fan, R. S. Jack, G. Workalemahu, A. Kallis, F. Stelter, C. Schütt, 1996 Monocytes can phagozytose Gram-negative bacteria by a CD14 – dependent mechanism. J. Immunol. 157: 4119.

Augusto, A. et al: Interaction of Pulmonary Surfactant Protein C with CD14 and Lipopolysaccharide Infection and Immunity 2003,71(1): 61-67

**Usage:**

This item is for LABORATORY ESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage..

Rev. 80317F