Product Data Sheet

Product Name:	CD14 Human, CHO
Cat. No.:	GP22992
Batch No.:	1

Product Data

Purity	>98%	Source	CHO-cells.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Monocyte differentiation antigen CD14; Myeloid cell-specific leucine-rich glycoprotein; CD14.		
Solubility	It is recommended to reconstitute the lyophilized CD14 in sterile 18MΩ-cm H2O not less than 100µg/ml. Further dilutions should be made with phosphate buffered saline (PBS).		
Formulation	CD14 was lyophilized from a concentrated protein solution (1.0 mg/ml) containing phosphate-buffered saline, pH 7.2.		

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.

Biological Activity

Up to 20 µg/ml CD14 inhibit binding of FITC-LPS (0.5µg/ml) to 600,000 CD14+CHO transfectants (FACS).

Stability

Lyophilized CD14 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution 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

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carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.

Background

The CD14 is produced from human CD14 transfected CHO-cells. Before transfection the complete human CD14-cDNA was amplified by PCR and cloned into expression vector p-POL-DHFR. The myeloid differentiation antigen CD14 acts as the major receptor for bacterial LPS. The dominant form of the recombinant wild type CD14 is the 50-kDa protein containing 335 amino acids and lacks the GPI-Anchor.

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