



LD Biopharma, Inc.  
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## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human CD14 (Extracellular) Protein  
**Catalog Number:** hRP-0355  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

Human CD14 (monocyte differentiation antigen CD14) is a 375 amino acid, phospholipid anchored cell surface protein. This protein is preferentially expressed on monocytes / macrophages. It cooperates with other proteins to mediate the innate immune response to bacterial lipopolysaccharide.

Full-length extracellular domain of human CD14 gene (20-345 aa) was constructed with 29 N-terminal T7/His tag and expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified. Coating this recombinant protein at 1-10 ug / well (6 well plate) in T cell specific medium can be used for human T cell / receptor interaction study in vitro.

**Gene Symbol:** CD14  
**Accession Number:** NP\_000582  
**Species:** Human  
**Size:** 100 µg / Vial  
**Composition:** 0.5 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Glycerol.  
**Storage:** In Liquid. Keep at -20°C for long term storage. Product is stable at 4 °C for at least 30 days.

### Key References

Schumann,R.R.,et al. *Structure and function of lipopolysaccharide binding protein*, Science 249 (4975), 1429-1431 (1990)



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Feng, A.L., et al. *CD16+ monocytes in breast cancer patients: expanded by monocyte chemoattractant protein-1 and may be useful for early diagnosis*. Clin. Exp. Immunol. 164 (1), 57-65 (2011)

## Applications

1. Protein can be used as coating matrix protein for study human T cell / Receptor interaction in vitro.
2. As highly purified protein, may be used as breast cancer biomarker for diagnosis application when combined with CD16 antigen.

## Quality Control

1. Purity: > 90% by SDS-PAGE.
2. Functional Test: Not tested yet.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHGNLYFQGTTPPELDDDFRCVCFSEPPQPDWSEAFQCVSAVEV  
EIHAGGLNLEPFLKRVDADADPRQYADTVKALRVRRLTVGAAQVPAQLLVGALRVLAYSRLKEL  
TLEDLKITGTMPPLPLEATGLALSSLRLRNVSATGRSWLAELQQWLKPKGLKVLSTIAQAHSPAF  
SCEQVRAFPALTSLDLSDNPGLGERGLMAALCPHKFPALQNLALRNTGMETPTGVCAALAAAGV  
QPHSLDLSHNSLRATVNPSAPRCMWSSALNSLNLNFAGLEQVPKGLPAKLRVLDLSCNRLNRAP  
QPDELPEVDNLTLDGNPFLVPGTALPHEGSMN