

# Recombinant human CD14 protein

Catalog Number: ATGP4095

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

20-344aa

### UniProt No.

P08571

### NCBI Accession No.

NP\_001167576.1

### Alternative Names

monocyte differentiation antigen CD14, CD14 molecule, Myeloid cell-specific leucine-rich glycoprotein

## PRODUCT SPECIFICATION

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### Molecular Weight

35.8kDa (331aa)

### Concentration

1mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured by its ability to enhance IL-8 secretion using THP-1 human acute monocytic leukemia cells in the presence of LPS. The ED50 range  $\leq$  100 ng/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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# Recombinant human CD14 protein

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## Description

CD14, also known as monocyte differentiation antigen CD14, is a member of the eucine-rich repeat (LRR) proteins family. It exists in two forms, one anchored to the membrane by a GPI-tail (mCD14), the other a soluble form (sCD14). It is a surface antigen that is preferentially expressed on monocytes/macrophages. It cooperates with other proteins to mediate the innate immune response to bacterial lipopolysaccharide(LPS). It acts as a co-receptor (along with TLR4 and MD-2) and helps to detect bacteria in the body by binding LPS, a pathogen-associated molecular pattern (PAMP). Recombinant human CD14, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

## Amino acid Sequence

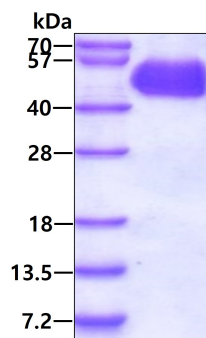
TTPEPCELDD EDFRCVCNFS EPQPDWSEAF QCVSAVEVEI HAGGLNLEPF LKRVDADADP RQYADTVKAL RVRRLTVGAA QVPAQLLVGA LRVLAYSRLK ELTLEDLKIT GTMPPLPLEA TGLALSSLRL RNVSWATGRS WLAELQQWLK PGLKVLSIAQ AHSPAFSCEQ VRAFPALTSL DLSDNPGLGE RGLMAALCPH KFPAIQNLAL RNTGMETPTG VCAALAAAGV QPHSLDLSHN SLRATVNPSA PRCMWSSALN SLNLSFAGLE QVPKGLPAKL RVLDLSCNRL NRAPQPDELP EVDNLTLDGN PFLVPGTALP HEGSM<HHHHH H>

## General References

Kelley S.L., et al (2013) J. Immunol. 190:1304-1311.  
Setoguchi M., et al (1989) Biochim. Biophys. Acta 1008:213-222.

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

Human CD14 enhance the IL-8 secretion of the THP-1 human acute monocytic leukemia cells in the presence of LPS. The ED50 range  $\leq$  100 ng/ml.

