Recombinant human CD14 protein

Catalog Number: ATGP4095

PRODUCT INFORMATION

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

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 ≤ 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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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

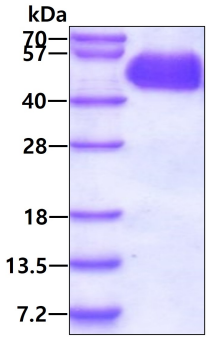
TTPEPCELDD EDFRCVCNFS EPQPDWSEAF QCVSAVEVEI HAGGLNLEPF LKRVDADADP RQYADTVKAL RVRRLTVGAA QVPAQLLVGA LRVLAYSRLK ELTLEDLKIT GTMPPLPLEA TGLALSSLRL RNVSWATGRS WLAELQQWLK PGLKVLSIAQ AHSPAFSCEQ VRAFPALTSL DLSDNPGLGE RGLMAALCPH KFPAIQNLAL RNTGMETPTG VCAALAAAGV QPHSLDLSHN SLRATVNPSA PRCMWSSALN SLNLSFAGLE QVPKGLPAKL 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.

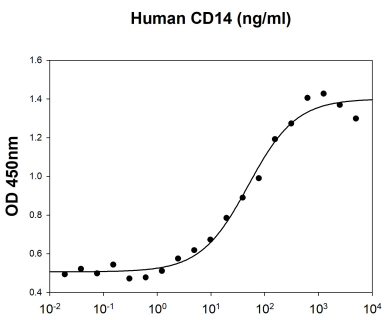
DATA

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 ≤ 100 ng/ml.