

# Recombinant human CCL2/MCP-1 protein

Catalog Number: ATGP4067

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

24-99aa

### UniProt No.

P13500

### NCBI Accession No.

NP\_002973.1

### Alternative Names

SMC-CF, Small inducible cytokine subfamily A member 2, Small inducible cytokine A2, SCYA2, Monocyte secretory protein JE, Monocyte chemotactic protein 1 homologous to mouse Sig-je, Monocyte chemotactic and activating factor, MGC9434, MCP-1, MCP1, MCAF, HC11, GDCF-2, C-C motif chemokine ligand 2

## PRODUCT SPECIFICATION

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### Molecular Weight

9.5kDa (82aa)

### Concentration

0.25mg/ml (determined by Absorbance at 280nm)

### Formulation

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

### Purity

> 90% by SDS - PAGE

### Endotoxin level

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

### Biological Activity

Measured its ability to chemoattract using THP-1 human acute monocytic leukemia cells. The ED50 range  $\leq$  30 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.

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## BACKGROUND

### Description

CCL2(Chemokine ligand 2), as known as MCP-1(monocyte chemotactic protein-1), is a small cytokine belonging to the CC chemokine family. This protein recruits monocytes, memory T cells, and dendritic cells to sites of tissue injury and infection. It binds to chemokine receptors CCR2 and CCR4. It also induces enzyme and cytokine release by monocytes, NK cells and lymphocytes, and histamine release by basophils, primarily due to interaction with CCR2 receptors on these cells. It has been implicated in the pathogenesis of diseases characterized by monocytic infiltrates, like psoriasis, rheumatoid arthritis and atherosclerosis. Recombinant human CCL2/IE/MCP-1, fused to His-tag at C-terminus, was expressed in HEK293 and purified by using conventional chromatography techniques.

### Amino acid Sequence

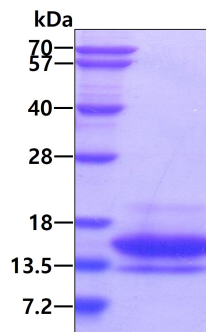
QPDAINAPVT CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE ICADPKQKWV QDSMDHLDKQ TQTPKT<HHHH  
HH>

### General References

Foresti ML, Arisi GM, et al. (2009). *J Neuroinflammation*. 6:40.  
Semple BD, Bye N, et al. (2010). *J Cereb Blood Flow Metab*. 30:769-782.

## DATA

### SDS-PAGE



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

### Biological Activity

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Human CCL2/MCP-1 chemoattracts the the THP-1 human acute monocytic leukemia cells. The ED50 range  $\leq 30$  ng/ml.

