

# Recombinant Human CCL2/MCP-1 Protein

Catalog No.: RP01411 Recombinant 1 Publications

## **Sequence Information**

Species Gene ID Swiss Prot Human 6347 P13500

Tags

No tag

**Synonyms** 

CCL2;GDCF-2;HC11;HSMCR30;MCAF;MCP-1;MCP1;SCYA2;SMC-CF

## **Product Information**

Source Purification
E. coli ≥ 90 % as
determined by SDS-

PAGE.

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Calculated MW Observed MW

8.69 kDa 13-14 kDa

**Endotoxin** 

< 1 EU/µg of the protein by LAL method.

#### **Formulation**

Lyophilized from a 0.22  $\mu$ m filtered solution of PBS, pH 7.4.

## Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

#### **Contact**

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## **Background**

Monocyte chemoattractant protein 1 (MCP-1), also called CCL2, belongs to a group of CC chemokines located in chromosome 17q11.2. MCP-1 protein interacts with chemokine C-C motif receptor 2 (CCR2) to activate and recruit monocytes, macrophages, CD4+ T cells and immature dendritic cells to the site of infection. The presence of MCP-1 protein in an adequate concentration is important for granuloma formation and M. tuberculosis clearance.

#### **Basic Information**

#### Description

Recombinant Human CCL2/MCP-1 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Gln24-Thr99) of human CCL2/MCP-1 (Accession #NP 002973.1) fused with no additional amino acid.

#### **Bio-Activity**

1.Measured by the ability to inhibit the proliferation of HUVEC(Human Umbilical Vein Endothelial Cells). The ED $_{50}$  for this effect is 0.53-2.12 ng/mL.|2.Measured by its ability to chemoattract THP-1 cells. The ED $_{50}$  for this effect is typically 1.01-4.04 ng/mL.

## Shipping

The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

#### **Storage**

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

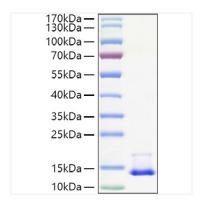
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

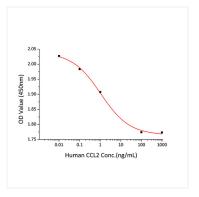
#### **Operational Notes**

For your safety and health, please wear a lab coat and disposable gloves for handling.

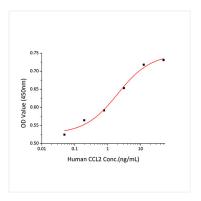
# **Validation Data**



Recombinant Human CCL2/MCP-1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human CCL2 inhibit the proliferation of HUVEC(Human Umbilical Vein Endothelial Cells). The ED $_{50}$  for this effect is 0.53-2.12 ng/mL.



Recombinant Human CCL2 chemoattract THP-1 cells. The  $\rm ED_{50}$  for this effect is typically 1.01-4.04 ng/mL.