



11 Park Drive, Suite 12  
Boston, MA 02215

## Rat Monocyte Chemotactic Protein-1 (MCP-1)

### ORDERING INFORMATION

Catalog No: rAP-0099;

Size: 2 µg; 10 µg

Storage: <- 20° C

### Synonyms:

Small inducible cytokine A2, CCL2, Monocyte chemotactic protein 1, MCP-1, Monocyte chemoattractant protein 1, Monocyte chemotactic and activating factor, MCAF, Monocyte secretory protein JE, HC11, chemokine (C-C motif) ligand 2, MCP1, SCYA2, GDCF-2, SMC-CF, HSMCR30, MGC9434, GDCF-2 HC11, Immediate-early serum-responsive JE protein.

### Introduction:

Chemokine (C-C motif) ligand 2 (CCL2) is a small cytokine belonging to the CC chemokine family that is also known as monocyte chemotactic protein-1 (MCP-1). It is found at the site of tooth eruption and bone degradation. In the bone, CCL2 is expressed by mature osteoclasts and osteoblasts and is under the control of nuclear factor κB (NFκB). CCL2 recruits immune cells, such as monocytes, to sites of tissue injury and infection. This chemokine is produced as a protein precursor containing signal peptide of 23 amino acids and a mature peptide of 76 amino acids. It is a monomeric polypeptide, with a molecular weight of approximately 13kDa. As with many other CC chemokines, CCL2 is located on chromosome 17 in humans. The cell surface receptors that bind CCL2 are CCR2 and CCR5.

### Description:

Monocyte Chemotactic Protein-1 Rat Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 125 amino acids and having a molecular mass of 14092 Dalton. The MCP-1 is purified by proprietary chromatographic techniques.

### Source:

*Escherichia Coli.*

### Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

### Formulation:

The protein was lyophilized from a concentrated (1mg/ml) sterile solution containing no additives.

### Solubility:

It is recommended to reconstitute the lyophilized Monocyte Chemotactic Protein-1 in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability:

Lyophilized MCP-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CCL2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

### Purity:

Greater than 97.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, [angioproteomie@gmail.com](mailto:angioproteomie@gmail.com)



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**Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Gln-Pro-Asp-Ala-Val.

**Biological Activity:**

The specific activity as determined by the ability of Rat MCP-1 to chemoattract human Monocytes at 10-100ng/ml.

**Usage:**

Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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