
Product Data Sheet

Product Name: MCP 1 Human
 Cat. No.: GP21149
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
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.		
Amino Acid Sequence	QPDAINAPVT CCYNFTNRKI SVQRLASYRR ITSSKCPKEA VIFKTIVAKE ICADPKQKWV QDSMDHLDKQ TQTPKT.		
Solubility	It is recommended to reconstitute the lyophilized Monocyte Chemotactic Protein-1 in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	CCL2 was lyophilized from a concentrated (1mg/ml) sterile solution without any additives.		

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 κ B (NF κ B). 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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Biological Activity

The specific activity as determined by the ability of MCP-1 to chemoattract human THP-1 cells is detectable starting at 1ng/ml.

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.

Background

Monocyte Chemotactic Protein-1 Human Recombinant also known as Monocyte Chemotactic and Activating Factor (MCAF) produced in E.Coli is a non-glycosylated, Polypeptide chain containing 76 amino acids and having a molecular mass of 8.6kDa. The MCP-1 is purified by proprietary chromatographic techniques.

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