



Product Datasheet

Product Name	Recombinant Human Monocyte Chemotactic Protein-1 (CCL2)
Cata No	CB500038
Source	<i>Escherichia Coli.</i>
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.

Description

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.

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 8607 Dalton.

The MCP-1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

The specific activity as determined by the ability of MCP-1 to chemoattract human Monocytes using a concentration of 5-20 ng/ml.

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

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

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.

Sequence

The sequence of the first five N-terminal amino

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acids was determined and was found to be
Gln-Pro-Asp-Ala-Ile.

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