



Product Data Sheet

Cat # RP-1020

Recombinant Human Monocyte Chemotactic Protein-2 (CCL8)

Size: 10 ug

Chemokine (C-C motif) ligand 8 (CCL8) is a small cytokine belonging to the CC chemokine family that was once called monocyte chemotactic protein-2 (MCP-2). The CCL8 protein is produced as a precursor containing 109 amino acids, which is cleaved to produce mature CCL8 containing 75 amino acids. The gene for CCL8 is encoded by 3 exons and is located within a large cluster of CC chemokines on chromosome 17q11.2 in humans. MCP-2 is chemotactic for and activates a many different immune cells, including mast cells, eosinophils and basophils, (that are implicated in allergic responses), and monocytes, T cells, and NK cells that are involved in the inflammatory response. CCL8 elicits its effects by binding to several different cell surface receptors called chemokine receptors. These receptors include CCR1, CCR2 and CCR5.

The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals

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Source: *Escherichia Coli*. Monocyte Chemotactic Protein-2 Human Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 76 amino acids and having a molecular mass of 8904 Dalton. The MCP2 is purified by proprietary chromatographic techniques. The protein was lyophilized from a concentrated (1mg/ml) sterile solution containing no additives.

Applications and Suggested Dilutions: Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. It is recommended to reconstitute the lyophilized Monocyte Chemotactic Protein-2 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: Lyophilized MCP2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CCL8 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). If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage. **Please prevent freeze-thaw cycles.**

Biological

Activity:

The biological activity was determined by measuring the dose dependent mobilization of intracellular calcium (calcium flux) with human THP-1 cells. Significant calcium mobilization is observed with ≥500ng/mL of recombinant human MCP-2. Human MCP-2 also induces dose dependent chemotaxis of human THP-1 cells with an ED₅₀=30-100 ng/m

Usage:

This item is for LABORATORY RESEARCH USE ONLY.