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MCP 2 Human

Monocyte Chemotactic Protein-2 Human Recombinant (CCL8)
CHK0103

Product Overview

Name	MCP 2 Human

Description

Monocyte Chemotactic Protein-2 Human Recombinant (CCL8)

Accession (Primary)	P80075

Synonyms

Small inducible cytokine A8, CCL8, Monocyte chemotactic protein 2, MCP-2, Monocyte chemoattractant protein 2, HC14, chemokine (C-C motif) ligand 8, MCP2, SCYA8, SCYA10.

Introduction

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, CCR2B and CCR5.

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.

Stability

Lyophilized MCP2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CCL8should 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 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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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-Ser-Val.

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/mL corresponding to a Specific Activity of 10,000-33,334IU/mg.

Solubility

It is recommended to reconstitute the lyophilized Monocyte Chemotactic Protein-2in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Precautions

MCP 2 Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P80075)