Monocyte Chemotactic Protein-2 (CCL8), mouse recombinant (rmMCP-2)

Catalog No: 97343
Lot No: XXXXX
Source: *E. coli*
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, AB023418, 1810063B20Rik

Background

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.

Description

Monocyte Chemotactic protein-2 mouse recombinant produced in *E. coli* is a non-glycosylated, polypeptide chain containing 74 amino acids and having a molecular mass of 8507 Dalton. MCP-2 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated (1.0 mg/ml) solution in 20 mM PB, pH 7.4, 150 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized CCL8 in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized MCP-2, 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). Please prevent freeze-thaw cycles.

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

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GPDKAPVTCC FHVLKLKIPL RVLKSYERIN NIQCPMEAVV FQTKQGMSLC VDPTQKWVSE YMEILDQKSQ ILQP
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Activity

Determined by its ability to chemoattract human peripheral blood monocytes using a concentration range of 10 - 100 ng/ml corresponding to a specific activity of 10,000 - 100,000 IU/mg.

Usage

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