



## User Manual

**MIP-1 alpha/CCL3 (MIP-1 $\alpha$ /CCL3) (Human)**

**Cat. No. HECCP-03023**

**Description:**

Both MIP-1 $\alpha$  and MIP-1 $\beta$  are structurally and functionally related CC chemokines. They participate in the host response to invading bacterial, viral, parasite and fungal pathogens by regulating the trafficking and activation state of selected subgroups of inflammatory cells e.g. macrophages, lymphocytes and NK cells. While both MIP-1 $\alpha$  and MIP-1 $\beta$  exert similar effects on monocytes their effect on lymphocytes differ; with MIP-1 $\alpha$  selectively attracting CD8+ lymphocytes and MIP-1 $\beta$  selectively attracting CD4+ lymphocytes. Additionally, MIP-1 $\alpha$  and MIP-1 $\beta$  have also been shown to be potent chemoattractants for B cells, eosinophils and dendritic cells. Both human and murine MIP-1 $\alpha$  and MIP-1 $\beta$  are active on human and murine hematopoietic cells.

**Source:**

*Escherichia coli*

**Unit:**

1 mg

**Reconstitution:**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20°C. Further dilutions should be made in appropriate buffered solutions.

**Formulation:**

Lyophilized from a 0.2  $\mu$ m filtered concentrated solution in 20 mM PB, pH 7.4, 100 mM NaCl.

**Storage:**

This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

**Molecular Weight:**

Approximately 7.8 kDa protein containing 70 amino acid residues, including the four highly conserved cysteine residues present in CC chemokines.

**Endotoxin:**

Less than 1 EU/ $\mu$ g of MIP-1 $\alpha$ /CCL3 as determined by LAL method.

**Usage:**

This material is offered by Cyagen Biosciences for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.

**Biological Activity:**

The biologically active determined by a chemotaxis bioassay using human monocytes is in a concentration range of 1.0-10 ng/mL.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

ASLAADTPTA CCFSYTSRQI PQNFIADYFE TSSQCCKPGV IFLTKRSRQV  
CADPSEEWVQ KYVSDLELSA

**Purity:**

> 96% by SDS-PAGE and HPLC analyses.

Material Safety Data Sheets (MSDSs) are available upon request.

The Certificate of Analysis (COA), which provides detailed quality control information for each product, is also available at the Cyagen website.

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