



## User Manual

**MIP-4/CCL18 (MIP-4/CCL18) (Human)**

**Cat. No. HECCP-18013**

**Description:**

MIP-4/CCL18 is a novel CC chemokine that is highly homologous to MIP-1 $\alpha$  (61% amino acid sequence identity). CCL18 cDNA encodes an 89 amino acid (a.a.) residue precursor protein with a 20 aa putative signal peptide that is cleaved to generate a 69 a.a. residue mature protein which lacks potential glycosylation sites. *In vitro*, CCL18 mRNA expression is induced in alternatively activated macrophages by Th2 cytokines such as IL-4, IL-10 and IL-13, and inhibited by IFN- $\gamma$ . CCL18 mRNA is also expressed by GM-CSF/IL-4-induced monocyte-derived dendritic cells. *In vivo*, CCL18 is highly expressed in lung and placenta but is not expressed in epidermal Langerhans cells. Recombinant CCL18 has been shown to chemoattract naive T cells, but not monocytes or neutrophils.

**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, a single non-glycosylated polypeptide chain containing 69 amino acids.

**Endotoxin:**

Less than 1 EU/μg of MIP-4/CCL18 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 T-lymphocytes is in a concentration of 1.0-10 ng/mL.

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**AA Sequence:**

AQVGTNKELC CLVYTSWQIP QKFIVDYSET SPQCPKPGVI LLTKRGRQIC  
ADPNKKWVQK YISDLKLNA

**Purity:**

> 97% 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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