

**MIP-4/CCL18**  
**Catalog # PVGS1096****Specification**

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**MIP-4/CCL18 - Product Information**

Primary Accession [P55774](#)  
**Species**  
Human

**Sequence**  
Ala21-Ala89

**Purity**  
> 97% as analyzed by SDS-PAGE<br>> 97% as analyzed by HPLC

**Endotoxin Level**  
< 1 EU/ µg of protein by LAL method

**Biological Activity**  
Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human T-lymphocytes is in a concentration of 1.0-10.0 ng/ml.

**Expression System**  
E. coli

**Theoretical Molecular Weight**  
7.9 kDa

Formulation **Lyophilized from a 0.2 µm filtered solution in 20 mM PB, pH 7.4, 100 mM NaCl.**

**Reconstitution**  
It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/ml.

**Storage & Stability**  
Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

**MIP-4/CCL18 - Additional Information**

**Gene ID** 6362

**Other Names**  
C-C motif chemokine 18, Alternative macrophage activation-associated CC chemokine 1, AMAC-1, CC chemokine PARC, Dendritic cell chemokine 1, DC-CK1, Macrophage inflammatory protein 4, MIP-4, Pulmonary and activation-regulated chemokine, Small-inducible cytokine A18, CCL18(1-68), CCL18(3-69), CCL18(4-69), CCL18, AMAC1, DCCK1, MIP4, PARC, SCYA18

**Target Background**

CCL18, is a novel CC chemokine that is highly homologous to MIP-1 $\alpha$  (61% amino acid sequence identity). CCL18 cDNA encodes an 89 aa residue precursor protein with a 20 aa putative signal peptide that is cleaved to generate a 69 aa 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.

**MIP-4/CCL18 - Protein Information**

**Name** CCL18

**Synonyms** AMAC1, DCCK1, MIP4, PARC, SCYA18

**Function**

Chemotactic factor that attracts lymphocytes but not monocytes or granulocytes. May be involved in B-cell migration into B- cell follicles in lymph nodes. Attracts naive T-lymphocytes toward dendritic cells and activated macrophages in lymph nodes, has chemotactic activity for naive T-cells, CD4+ and CD8+ T-cells and thus may play a role in both humoral and cell-mediated immunity responses.

**Cellular Location**

Secreted.

**Tissue Location**

Expressed at high levels in lung, lymph nodes, placenta, bone marrow, dendritic cells present in germinal centers and T-cell areas of secondary lymphoid organs and macrophages derived from peripheral blood monocytes. Not expressed by peripheral blood monocytes and a monocyte-to-macrophage differentiation is a prerequisite for expression. Expressed in synovial fluids from patients with rheumatoid and septic arthritis and in ovarian carcinoma ascitic fluid

**MIP-4/CCL18 - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**MIP-4/CCL18 - Images**