



## Macrophage Inflammatory Protein-4 (CCL18), human recombinant (rHuMIP-4)

**Catalog No:** 94861  
**Lot No:** XXXXX  
**Source:** *E. coli*  
**Synonyms:** Small inducible cytokine A18, CCL18, Macrophage inflammatory protein 4, MIP-4, Pulmonary and activation-regulated chemokine, CC chemokine PARC, Alternative macrophage activation-associated CC chemokine 1, AMAC-1, Dendritic cell chemokine 1, DC-CK1, chemokine (C-C motif) ligand 18, CKb7, PARC, AMAC1, DCCK1, SCYA18

### Background

Chemokine (C-C motif) ligand 18 (CCL18 / MIP-4) is a small cytokine belonging to the CC chemokine family that was previously called PARC (pulmonary and activation-regulated chemokine). MIP-4 is approximately 60% identical in amino acid sequence to CCL3. MIP-4 is expressed at high levels in lung and at lower levels in certain lymphoid tissues, such as the lymph nodes, and is chemotactic for activated T cells and non activated lymphocytes. The gene for human CCL18 contains three exons and is located on chromosome 17.

### Description

Macrophage Inflammatory protein-4 human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 69 amino acids and having a molecular mass of 7813 Dalton. MIP-4 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

MIP-4 protein is lyophilized from a 0.2 µm filtered concentrated (1.0 mg/ml) solution in 20 mM PB, pH 7.4, 100 mM NaCl.

### Solubility

It is recommended to reconstitute the lyophilized MIP-4 in sterile 18 MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized MIP-4, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution MIP-4 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

The sequence of the first five N-terminal amino acids of MIP-4 was determined and found to be Ala-Gln-Val-Gly-Thr.

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#### **Activity**

The Activity MIP-4 is calculated by the ability to chemoattract Human T lymphocytes at 1 - 10 ng/ml corresponding to a specific activity of 100,000 - 1,000,000 IU/mg.

#### **Usage**

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**