
Product Data Sheet

Product Name: MIP 1b Human
 Cat. No.: GP21179
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Small inducible cytokine A4; CCL4; Macrophage inflammatory protein 1-beta; MIP-1- beta; MIP-1-beta(1-69); T-cell activation protein 2; ACT-2; PAT 744; H400; SIS-gamma; Lymphocyte activation gene 1 protein; LAG-1; HC21; G-26 T-lymphocyte-secreted protein; chemokine (C-C motif) ligand 4; ACT2; G-26; LAG1; MIP1B; SCYA4; AT744.1; MGC104418; MGC126025; MGC126026.		
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be, Ala-Pro-Met-Gly-Ser.		
Solubility	It is recommended to reconstitute the lyophilized Macrophage Inflammatory Protein-1b in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a concentrated (1mg/ml) solution in water containing no additives.		

Introduction

Macrophage Inflammatory Proteins belong to the family of chemotactic cytokines known as chemokines. In humans, there are two major forms, MIP-1a and MIP-1b that are now also named CCL3 and CCL4. Both factors are produced by macrophages after they are stimulated with bacterial endotoxins. MIP-1a and MIP-1b activate human granulocytes (neutrophils, eosinophils and basophils) which can lead to acute neutrophilic inflammation. MIP-1a and MIP-1b induce synthesis and release of other pro-inflammatory cytokines such as interleukin-1 (IL-1), IL-6 and TNF-alpha from fibroblasts and macrophages. CCL3 and CCL4 genes are both located on human chromosome 17.

Biological Activity

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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The Activity is calculated by the ability to chemoattract Human blood monocytes using a concentration of 5-20ng/ml corresponding to a Specific Activity of 50,000-200,000IU/mg.

Stability

Lyophilized MIP-1b although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution CCL4 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.

Background

Macrophage Inflammatory Protein-1 beta Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 69 amino acids and having a molecular mass of 7620 Dalton. The CCL4 is purified by proprietary chromatographic techniques.

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