
Product Data Sheet

Product Name: MIP 1a Rat
 Cat. No.: GP21178
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Small inducible cytokine A3; CCL3; Macrophage inflammatory protein 1-alpha; MIP-1-alpha; Tonsillar lymphocyte LD78 alpha protein; G0/G1 switch regulatory protein 19-1; G0S19-1 protein; SIS-beta; PAT 464.1; chemokine (C-C motif) ligand 3; MIP1A; SCYA3; G0S19-1; LD78ALPHA.		
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be, Ala-Pro-Tyr-Gly-Ala.		
Solubility	It is recommended to reconstitute the lyophilized Macrophage Inflammatory Protein-1a in sterile 18MΩ-cm H ₂ O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	The protein was lyophilized from 1 mg/ml solution containing no additives.		

Introduction

Macrophage Inflammatory Proteins (MIP) 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 officially named CCL3 and CCL4 respectively. Both are major factors produced by macrophages after they are stimulated with bacterial endotoxins. They activate human granulocytes (neutrophils, eosinophils and basophils) which can lead to acute neutrophilic inflammation. They also induce the synthesis and release of other pro-inflammatory cytokines such as interleukin 1 (IL-1), IL-6 and TNF-α from fibroblasts and macrophages. The genes for CCL3 and CCL4 are both located on human chromosome 17.

Biological Activity

The Activity is calculated by the ability to chemoattract of rat peritoneal macrophages

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

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using a conc. of 60 ng/ml corresponding to a Specific Activity of 16,667IU/mg.

Stability

Lyophilized MIP-1a although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution CCL3 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 alpha Rat Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 69 amino acids and having a molecular mass of 7853 Dalton. The MIP-1a is purified by proprietary chromatographic techniques.

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