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California Bioscience

Product Datasheet

Product Name	Recombinant Rat Macrophage Inflammatory Protein-1 Alpha (CCL3)
Cata No	CB500075
Source	*Escherichia Coli.*
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.

Description

Macrophage Inflammatory Proteins (MIP) belong to the family of chemotactic cytokines known as chemokines. In humans, there are two major forms, MIP-1α and MIP-1β 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.

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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

The Activity is calculated by the ability to chemoattract of rat peritoneal macrophages using a conc. of 60 ng/ml.

Purity

Greater than 95.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

The protein was lyophilized from 1 mg/ml solution containing no additives.

Stability

Lyophilized MIP-1a although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution CCL3 should be stored at 4℃ between 2-7 days and for future use below -18℃.
Please prevent freeze-thaw cycles.

Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be, Ala-Pro-Tyr-Gly-Ala.