

Product Data Sheet

Cat # RP-1002

Recombinant Human Macrophage Inflammatory protein-1 alpha (CCL3) **Size:** 5 ug

20 ug

Introduction: Macrophage Inflammatory Proteins (MIP) belong to the family of chemotactic cytokines known as chemokines. In humans, there are two major forms, MIP-1 α and MIP-1 β 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. The Activity is calculated by the ability of chemo-attraction of Human monocytes using 1-10 ng/ml.

Source: Macrophage Inflammatory Protein-1 alpha Human Recombinant produced in E. Coli is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7820 Dalton. The MIP-1 α is purified by proprietary chromatographic techniques. The protein was lyophilized from 0.55 mg/ml solution containing no additives. If supplied in powder then reconstitute it in 100 μ l water for 1 mg/ml stock and store in liquid at 4 $^{\circ}$ C for ~1 week or aliquots in suitable size and store at -20 $^{\circ}$ C for long term storage.

Application and Suggested Dilution: It is recommended to reconstitute the lyophilized Macrophage Inflammatory Protein-1 α in sterile 18M Ω -cm H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions. Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

Stability: Lyophilized MIP-1 α although stable at room temperature for 3 weeks, should be stored desiccated below -18 $^{\circ}$ C. Upon reconstitution CCL3 should be stored at 4 $^{\circ}$ C between 2-7 days and for future use below -18 $^{\circ}$ C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.** If supplied in powder then reconstitute it in 100 μ l water for 1 mg/ml stock and store in liquid at 4 $^{\circ}$ C for ~1 week or aliquots in suitable size and store at -20 $^{\circ}$ C for long term storage.

Usage: This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals

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