

Product Data Sheet

Cat # RP-1009 Recombinant Human Monocyte Chemotactic Protein-1/MCAF (CCL2) **Size:** 10 ug

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.

Source: 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. *Escherichia Coli*. Lyophilized from a concentrated (1 mg/ml) solution in water containing no additives.

Applications and Suggested Dilutions: Greater than 99.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. It is recommended to reconstitute the lyophilized Macrophage Inflammatory Protein-1b in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. Users must optimize the appropriate concentration and conditions for each assay.

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Storage and 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). If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage.

Please prevent freeze-thaw cycles.

Biological Activity: The Activity is calculated by the ability to chemoattract Human blood monocytes using a concentration of 5-20 ng/ml.

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