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# MIP 1b Human

Description: 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.

Synonyms: Small inducible cytokine A4, CCL4, Macrophage inflammatory protein 1-beta, MIP-1beta, 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,

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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.

Purity: Greater than 99.0% as determined by(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

#### Formulation:

Lyophilized from a concentrated (1 mg/ml) solution in water containing no additives.

#### 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.

## Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

#### Solubility:

It is recommended to reconstitute the lyophilized Macrophage Inflammatory Protein-1b in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

# 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 inducesynthesis 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:**

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.







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# References:

Title: CONFUSION BETWEEN CCL4 AND CCL4L1: AN EXAMPLE TO BEAR IN MIND WHEN

USING THIRD-PARTY REAGENTS.Publication: Inmunologia Vol. 26 / Num 1/ Enero-Marzo 2007: 51-54 (Spanish).Link: http://revista.inmunologia.org/Upload/Articles/7/5/756.pdf

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