

Recombinant Murine Macrophage Inflammatory Protein-1 beta (rm MIP-1 β / CCL4)

Synonyms: Small inducible cytokine A4, T-cell activation protein 2, ACT-2, SIS-gamma, Lymphocyte activation gene 1 protein, LAG-1, HC21, G-26 T-lymphocyte-secreted protein, G-26.

Introduction: Macrophage Inflammatory Proteins (MIP) belong to the family of chemotactic cytokines known as chemokines. In humans there are two major forms. 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 MIP-1alpha and MIP-1beta are both located on human chromosome 17.

Description: Recombinant Murine MIP-1 β produced in *E. Coli* is a single, non-glycosylated, polypeptide chain containing 69 amino acids and having a molecular mass of 7.8 kDa. rm MIP-1 β is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: The protein was lyophilized from 1 mg/ml solution in water containing no additives. The aliquots of 1 μ g and 2 μ g contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rm MIP-1 β in sterile H₂O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm MIP-1 β , although stable at room temperature for 3 weeks, should be stored desiccated below -18 $^{\circ}$ C. Upon reconstitution rm MIP-1 β 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.

Purity: Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

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.

Biological Activity: rm MIP-1 β is fully biologically active when compared to standard. The activity is calculated by the ability to chemoattract of human blood monocytes at 20 -100 ng/ml.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 μ g	Cat.N $^{\circ}$	12343222
<i>medium</i>	10 μ g	Cat.N $^{\circ}$	12343223
<i>large</i>	50 μ g	Cat.N $^{\circ}$	12343225

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