

Recombinant Human Macrophage Inflammatory Protein-1 beta/CCL4

#R00378

Size: 10 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
 - 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 - 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

CCL4 encoded by the CCL4 gene, also known as Macrophage Inflammatory Protein-1β (MIP-1β) is a CC chemokine with specificity for CCR5 receptors and it is a major HIV-suppressive factor produced by CD8+ T cells. It is a monokine with inflammatory and chemokinetic properties. Recombinant CCL4 induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV). Specifically, MIP-1-beta (3-69) is also a ligand for CCR1 and CCR2 isoform B. Recombinant human CCL4 contains 69 amino acids and it shares 77 % and 80 % a.a. sequence identity with murine and rat CCL4, respectively. Both human and murine MIP-1α and MIP-1β are active on human and murine hematopoietic cells.

AA Sequence

APMGSDPPTACCFSYTARKLPRNFVVDYYETSSLCS

QPAVVFQTKRSKQVCADPSESWVQEYVYDLELN

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	G-26 T-lymphocyte-secreted protein, HC21, LAG-1, MIP-1-beta, PAT 744, Protein H400, SIS-gamma, Small-inducible cytokine A4, ACT-2
Accession	P13236
GeneID	6351
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 7.8 kDa, a single non-glycosylated polypeptide chain containing 69 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by

a chemotaxis bioassay using human peripheral blood monocytes is in a concentration range of 5.0-20 ng/ml.

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

Formulation Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.

Endotoxin Less than 1 EU/µg of rHuMIP-1β/CCL4 as determined by LAL method.
