Datasheet

Cat. No. P1459

Recombinant Human Macrophage Inflammatory Protein-1 beta/CCL4

Information

Gene ID	6351
Accession #	P13236
Alternate Names	G-26 T-lymphocyte-secreted protein, HC21, LAG-1, MIP-1-beta, PAT 744, Protein H400, SIS-gamma, Small-inducible cytokine A4, ACT-2
Source	Escherichia coli.
M.Wt	Approximately 7.8 kDa, a single non-glycosylated polypeptide chain containing 69 amino acids.
AA Sequence	APMGSDPPTA CCFSYTARKL PRNFVVDYYE TSSLCSQPAV VFQTKRSKQV CADPSESWVQ EYVYDLELN
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
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.
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.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10μg	100μg	500μg
Recombinant Human Macrophage Inflammatory Protein-1 beta/CCL4	10μg	100μg	500μg

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

Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuMIP-1β/CCL4 as determined by LAL method.

Description

CCL4 encoded by the CCL4 gene, also known as Macrophage Inflammatory Protein-1 β (MIP-1 β) 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-1 α and MIP-1 β are active on human and murine hematopoietic cells.

Reference

1. Irving SG, Zipfel PF, Balke J, et al. 1990. Nucleic Acids Res. 18:3261-70
2. Cocchi F, DeVico AL, Garzino-Demo A, et al. 1995. Science. 270:1811-5
3. Garlisi CG, Xiao H, Tian F, et al. 1999. Eur J Immunol. 29:3210-5
4. Guan E, Wang J, Roderiquez G, et al. 2002. J Biol Chem. 277:32348-52.

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