Datasheet

Cat. No. P1497

Recombinant Murine Macrophage Inflammatory Protein-1 beta/CCL4

Information

Gene ID	20303
Accession #	P14097
Alternate Names	ACT-2, MIP-1-beta, Protein H400, SIS-gamma, Small-inducible cytokine A4
Source	Escherichia coli.
M.Wt	Approximately 7.8 kDa, a single non-glycosylated polypeptide chain containing 69 amino acids.
AA Sequence	APMGSDPPTS CCFSYTSRQL HRSFVMDYYE TSSLCSKPAV VFLTKRGRQI CANPSEPWVT EYMSDLELN
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 2 × PBS, pH 7.4.
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 monocytes is in a concentration range of 20-100 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 Murine 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	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuMIP-1β/CCL4 as determined by LAL method.

Description

Chemokine (C-C motif) ligand 4, 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. In addition, 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). Furthermore, recombinant murine CCL4 contains 69 amino acids and it shares 77 % and 86 % a.a. sequence identity with human and rat CCL4. Both human and murine MIP-1 α and MIP-1 β are active on human and murine hematopoietic cells.

Reference

1. Miyamoto MNaruo K, Seko C, et al. 1993. Mol Cell Biol. 13:4251-9
2. Santos-Ocampo S, Colvin JS, Chellaiah A, et al. 1996. J Biol Chem. 271:1726-31
3. Chellaiah A, Yuan W, Chellaiah M, et al. 1999. J Biol Chem. 274:34785-94.

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