Recombinant Rat Macrophage Inflammatory Protein-1 beta/CCL4

#R00457

Size: 5 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

Chemokine (C-C motif) ligand 4 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. In addition, it is a chemoattractant for natural killer cells, monocytes and a variety of other immune cells. Recombinant CCL4 induces a dose-dependent inhibition of different strains of HIV-1, HIV-2, and simian immunodeficiency virus (SIV). Furthermore, recombinant rat CCL4 contains 69 amino acids and it shares 80% and 86% a.a. sequence identity with human and murine CCL4. Both human and murine MIP-1α and MIP-1β are active on human and murine hematopoietic cells.

AA Sequence

APIGSDPPTSCCFSYTSRKIHRNFVMDYYETSSLCSQ
PAVVFLTKKGRQICADPSEPWVNEYVNDLELN

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	Small-inducible Cytokine A4
Accession	P50230
GeneID	116637
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 7.8 kDa, a single non-glycosylated polypeptide chain containing 69 amino acids.
Purity	> 95 % 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 10-1000 ng/ml.
Physical	Sterile Filtered White lyophilized

Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 2 × PBS, pH 7.4, 3 % trehalose.
Endotoxin	Less than 1 EU/μg of rRtMIP-1β/CCL4 as determined by LAL method.

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