

# Recombinant Rat Macrophage Inflammatory Protein-1 beta/CCL4 (Rat MIP-1 $\beta$ /CCL4)

## Product Information

Product Name	Cat#	Size
Recombinant Rat Macrophage Inflammatory Protein-1 beta/CCL4 (Rat MIP-1 $\beta$ /CCL4)	90998ES08	5 $\mu$ g
	90998ES60	100 $\mu$ g
	90998ES76	500 $\mu$ g

## Product Description

Both MIP-1 $\alpha$  and MIP-1 $\beta$  are structurally and functionally related CC chemokines. They participate in host response to invading bacterial, viral, parasite and fungal pathogens by regulating the trafficking and activation state of selected subgroups of inflammatory cells (e.g. macrophages, lymphocytes and NK cells). While both MIP-1 $\alpha$  and MIP-1 $\beta$  exert similar effects on monocytes, their effect on lymphocytes differ; with MIP-1 $\alpha$  selectively attracting CD8<sup>+</sup> lymphocytes, and MIP-1 $\beta$  selectively attracting CD4<sup>+</sup> lymphocytes. Additionally, MIP-1 $\alpha$  and MIP-1 $\beta$  have also been shown to be potent chemoattractants for B cells, eosinophils and dendritic cells. Both human and murine MIP-1 $\alpha$  and MIP-1 $\beta$  are active on human and murine hematopoietic cells. Recombinant Rat MIP-1 $\beta$  is a 7.8 kDa protein containing 69 amino acid residues, including the four highly conserved cysteine residues present in CC chemokines.

## Product Properties

<b>Synonyms</b>	Small-inducible Cytokine A4
<b>Accession</b>	P50230
<b>GeneID</b>	116637
<b>Source</b>	E.coli-derived Rat CCL4 protein,Ala24-Ala92.
<b>Molecular Weight</b>	Approximately 7.8 kDa
<b>AA Sequence</b>	APIGSDPPTS CCFSYTSRKI HRNFVMDYYE TSSLCSQPAV VFLTKKGRQI CADPSEPWVN EYVNDLELN
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 95% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	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.
<b>Endotoxin</b>	<1 EU/ $\mu$ g of protein as determined by LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered concentrated solution in 2 $\times$ PBS, pH 7.4, 3 % trehalose. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	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 $\leq$ -20 $^{\circ}$ C. Further dilutions should be made in appropriate buffered solutions.

## Shipping and Storage

The products are shipped with ice pack and can be stored at -20 $^{\circ}$ C to -80 $^{\circ}$ C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

## **Cautions**

1. Avoid repeated freeze-thaw cycles.

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2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.