

Recombinant Rat Chemokine (C-C Motif) Ligand 4

Cat. No. Ccl4-106R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant rat MIP-1 beta produced in <i>E.coli</i> is a 7.8 kDa protein containing 69 amino acid residues, including the four highly conserved cysteine residues present in CC chemokines.
Species	Rat
Source	E.coli
Description	Both MIP-1 alpha and MIP-1 beta are structurally and functionally related CC chemokines. They participate in the 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+ lymphocytes and MIP-1 beta selectively attracting CD4+ 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.
Purity	> 98% by SDS-PAGE and HPLC analysis.
Endotoxin level	< 0.1 ng/μg of MIP-1 beta.
Stabilizer	None.

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Formulation	Lyophilized.
Biologically Activity	Determined by its ability to chemoattract human monocytes using a concentration range of 0.01-1.0 µg/ml.
Reconstitution	The rat MIP-1 beta should be reconstituted in water to a concentration of 0.1-1.0 mg/ml. This solution can be diluted in water or other buffer solutions or stored at -20°C.
Stability	The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20°C. Reconstituted rat MIP-1 beta should be stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	Ccl4 chemokine (C-C motif) ligand 4 [Rattus norvegicus]
Synonyms	Ccl4; chemokine (C-C motif) ligand 4; Scya4; Mip1-b; small inducible cytokine A4; macrophage inflammatory protein-1 beta
Gene ID	116637
mRNA Refseq	NM_053858
Protein Refseq	NP_446310
UniProt ID	P50230
Chromosome Location	q26

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Pathway	Chemokine signaling pathway; Cytokine-cytokine receptor interaction
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Function	chemokine activity; protein binding
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