

Active Recombinant Rat Cxcl2

Cat. No. Cxcl2-626R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Cxcl2 produced in E. coli is approximately 7.9 kDa, a single, non-glycosylated polypeptide chain containing 73 amino acids.
Species	Rat
Source	E.coli
Description	Rat GRO-beta/MIP-2/CXCL2 has been found to be expressed by cytokine stimulated rat alveolar macrophages and fibroblasts. Based on its protein and DNA sequences, GRO-beta/MIP-2 is a member of the alpha (CXC) subfamily of chemokines. The protein sequence of rat GRO-beta/MIP-2 shares approximately 88 % identity with murine MIP2. Characteristic of ELR containing CXC chemokines, GRO-beta/MIP-2 is known to be a potent chemotactic factor for rat neutrophils in vitro and in vivo.
Form	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED 50 determined by a chemotaxis bioassay using total human neutrophils is less than 10 ng/ml, corresponding to a specific activity of $>1.0 \times 10^5$ IU/mg.
Molecular Mass	7.9 kDa
AA Sequence	VVVASELRCQ CLTTLPRVDF KNIQSLTVTP PGPHCAQTEV IATLKDGHEV CLNPEAPLVQ RIVQKILNKG KAN

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Endotoxin	Less than 1 EU/μg of rRtMIP-2/CXCL2 as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analyses.
Usage	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 centigrade to -70 centigrade. Avoid repeated freeze/thaw cycles.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	Cxcl2 chemokine (C-X-C motif) ligand 2 [<i>Rattus norvegicus</i>]
Official Symbol	Cxcl2
Synonyms	CXCL2; chemokine (C-X-C motif) ligand 2; C-X-C motif chemokine 2; MIP2; CINC-3; macrophage inflammatory protein 2; small inducible cytokine subfamily, member 2; cytokine-induced neutrophil chemoattractant 3; Mip-2; Scyb2;
Gene ID	114105

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mRNA Refseq	NM_053647
Protein Refseq	NP_446099
Pathway	Chemokine receptors bind chemokines, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; G alpha (i) signalling events, organism-specific biosystem;
Function	chemokine activity; chemokine activity;

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