

Recombinant Mouse Chemokine (C-X-C Motif) Ligand 2

Cat. No. Cxcl2-38M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse GRO-Beta also called mouse MIP-2 produced in <i>E. Coli</i> is a single, non-glycosylated, polypeptide chain containing 73 amino acids and having a molecular mass of 7849 Dalton. The GRO-Beta is purified by proprietary chromatographic techniques.
Species	Mouse
Source	E.coli
Description	Chemokine (C-X-C motif) ligand 2 (CXCL2) is a small cytokine belonging to the CXC chemokine family that is also called macrophage inflammatory protein 2-alpha (MIP2-alpha), Growth-regulated protein beta (Gro-beta) and Gro oncogene-2 (Gro-2). CXCL2 is 90% identical in amino acid sequence as a related chemokine, CXCL1. This chemokine is secreted by monocytes and macrophages and is chemotactic for polymorphonuclear leukocytes and hematopoietic stem cells. The gene for CXCL2 is located on human chromosome 4 in a cluster of other CXC chemokines. CXCL2 mobilizes cells by interacting with a cell surface chemokine receptor called CXCR2.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Val-Val-Ala-Ser.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	The protein was lyophilized with no additives.
Solubility	It is recommended to reconstitute the lyophilized GRO-beta Mouse in sterile 18MΩ-cm H ₂ O not less than 100g/ml, which can then be further diluted to other aqueous solutions.
Biological Activity	The Biological activity was determined by measuring the dose dependent mobilization of intracellular calcium (calcium flux) with human neutrophils. Significant calcium mobilization is observed with 5 ng/ml of recombinant mouse MIP-2.
Protein content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.015 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a standard solution of GRO-as a Reference Standard.
Storage	Lyophilized GRO-although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CXCL2 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	Cxcl2 chemokine (C-X-C motif) ligand 2 [<i>Mus musculus</i>]
Synonyms	Cxcl2; chemokine (C-X-C motif) ligand 2; GROb; Gro2; Mip2; Scyb; MIP-2; Scyb2; MIP-2a; Mgsa-b; CINC-2a; small inducible cytokine subfamily, member 2; MIP2
Gene ID	20310
mRNA Refseq	NM_009140

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Protein Refseq	NP_033166
UniProt ID	P10889
Chromosome Location	5 E1; 5 51.0 cM
Pathway	Chemokine signaling pathway; Cytokine-cytokine receptor interaction
Function	chemokine activity; cytokine activity

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