

Product Data Sheet

Cat # RP-1041

Recombinant Rat GRO-beta/MIP-2 (CXCL2)

Size: 5 ug

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.

The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals

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Source: *Escherichia Coli*. GRO-Beta Rat Recombinant also called Rat MIP-2 produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 73 amino acids and having a molecular mass of 7923 Dalton. The CXCL2 is purified by proprietary chromatographic techniques. The protein was lyophilized with no additives.

Applications and Suggested Dilutions: Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. It is recommended to reconstitute the lyophilized GRO-beta Rat in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. Users must optimize the appropriate concentration and conditions for each assay.

Storage and Stability: Lyophilized CXCL2 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). If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage. **Please prevent freeze-thaw cycles.**

Biological Activity: The Biological activity is calculated by its ability to chemoattract total rat neutrophils cells using 10.0-100.0 ng/ml.

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 CXCL2 as a Reference Standard.

Usage:
This item is for LABORATORY RESEARCH USE ONLY.

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