



11 Park Drive, Suite 12  
Boston, MA 02215

## Rat GRO-Beta (CXCL2)

### ORDERING INFORMATION

Catalog No: rAP-0086;

Size: 5 µg; 25 µg

Storage: <- 20° C

### Synonyms:

Macrophage inflammatory protein 2-alpha, MIP2-alpha, CXCL2, Growth-regulated protein beta, Gro-beta, chemokine (C-X-C motif) ligand 2, GRO2, GROb, MIP2, MIP2A, SCYB2, MGSA-b, MIP-2a, CINC-2a, MGSA beta, CINC-3.

### Introduction:

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.

### Description:

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.

### Source:

*Escherichia Coli*.

### Physical Appearance:

Sterile Filtered White Lyophilized (freeze-dried) powder.

### Formulation:

The protein was lyophilized with no additives.

### Solubility:

It is recommended to reconstitute the lyophilized GRO-beta Rat in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### 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).

**Please prevent freeze-thaw cycles.**

### Purity:

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Contact & Ordering Information: Angio-Proteomie, 11 Park Drive, Suite 12, Boston, MA 02215, USA. Fax: (480) 247-4337, [angioproteomie@gmail.com](mailto:angioproteomie@gmail.com)



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**Amino acid sequence:**

The sequence of the first five N-terminal amino acids was determined and was found to be Val-Val-Val-Ala-Ser.

**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:**

Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.