

# GRO-beta/MIP-2, rat recombinant (CXCL2) (rrMIP2)

Catalog No: 99966
Lot No: XXXXX
Source: E. coli

**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

#### **Background**

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 to 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, is produced in *E. coli*. It is a single, non-glycosylated polypeptide chain containing 73 amino acids and has a molecular mass of 7.9kDa. The GRO-b is purified by proprietary chromatographic techniques.

#### **Physical Appearance**

Sterile filtered, white, lyophilized (freeze-dried) powder.

# **Formulation**

Lyophilized from a 0.2 µm filtered concentrated solution in PBS (pH 7.4).

# Solubility

It is recommended to reconstitute the lyophilized GRO-beta Rat in sterile 18 M $\Omega$ -cm H $_2$ O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

#### Stability

Lyophilized GRO-b, 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.

# Amino Acid Sequence

VVVASELRCO CLTTLPRVDF KNIQSLTVTP PGPHCAQTEV IATLKDGHEV CLNPEAPLVQ RIVQKILNKG KAN

## Activity

The biological activity was determined by its ability to chemoattract total human neutrophils, using a concentration range of 1.0-10.0 ng/ml, corresponding to a specific activity of 100,000-1,000,000 units/mg.

#### Usage

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