



GRO-beta/MIP-2 (CXCL2), rat recombinant (rrGRO b)

Catalog No: 97349
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 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. 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 in sterile 18 MΩ-cm H₂O not less than 100 µg/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.

Purity

Greater than 99.0% as determined by SDS-PAGE.

Amino Acid Sequence

VVASELRCQ CLTTLPRVDF KNIQSLTVTP PGPHCAQTEV IATLKDGHV 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.

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