

Recombinant Mouse Growth factor beta (rm GRO-beta / rm CXCL2 / rm MIP-2a)

Synonyms: GRO2, SCYB2, CINC-2a, MGSA beta, Macrophage Inflammatory Protein-2 alpha.

Introduction: Growth factor beta is a small cytokine belonging to the CXC chemokine family. GRO-beta is 90% identical in amino acid sequence as a related chemokine, GRO-alpha. This chemokine is secreted by monocytes and macrophages and is chemotactic for polymorphonuclear leukocytes and hematopoietic stem cells. The gene for GRO-beta is located on human chromosome 4 in a cluster of other CXC chemokines. GRO-beta mobilizes cells by interacting with a cell surface chemokine receptor called CXCR2.

Description: Recombinant murine GRO-beta produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 73 amino acids and having a molecular mass of 7849 Dalton. Rm GRO-beta is purified by proprietary chromatographic techniques.

Source: *E. coli*.

Physical Appearance: Sterile filtered white lyophilized (freeze-dried) powder.

Formulation: lyophilized from a concentrated solution in 20mM PB, pH7.4 and 150mM NaCl. The sample size of 1µg contains Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rm GRO-beta in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rm GRO-beta although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rm GRO-beta 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 97.0% as determined by RP-HPLC and by SDS-PAGE.

Amino acid Sequence: AVVASELRCQ CLKTLPRVDF KNIQSLSVTP PGPHCAQTEV IATLKGGQKV
CLDPEAPLVQ

Biological Activity: The biological activity was determined by ability to chemoattract total human neutrophils using a concentration range of 1.0 – 10.0 ng/ml, corresponding to a specific activity of 10⁵-10⁶ units/mg.

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% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
- 2.) Analysis by RP-HPLC, using a calibrated solution of rm GRO- beta as a Reference Standard.

This material is offered for **research use only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	5 µg	Cat.N°	12343710
<i>medium</i>	20 µg	Cat.N°	12343714

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