

**BACKGROUND**

Growth Regulated Proteins (GRO) are a group of three proteins, GRO- $\alpha$ , - $\beta$  and - $\gamma$ , that are encoded by three distinct genes. All 3 GRO proteins can bind to the same receptors, but with differing affinities, and stimulate a number of biological responses including chemotaxis, angiogenesis, and growth regulation. More specifically, GRO $\gamma$  (also called CXCL3), can act through chemokine receptor CXCR2 to promote monocyte migration and adhesion.

Recombinant human GRO- $\gamma$  is a non-glycosylated protein, containing 73 amino acids and having a molecular weight of 7.9 kDa.

**Alternative Names:**

MIP-2 $\beta$ , CXCL3, GRO3

**Amino Acid Sequence:**

ASVVT $\text{ELRCQ}$  CLQTLQGIHL KNIQSVNVRS PGP $\text{HCAQTEV}$   
IATLKNGKKA CLNPASPMVQ KIIEKILNKG STN

**TECHNICAL INFORMATION**

**Source:** *E.coli*

**Physical Appearance:**

Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**

Recombinant human GRO $\gamma$  is lyophilized from 10 mM Na<sub>2</sub>PO<sub>4</sub>, pH 7.5.

**Stability:**

Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**

Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

**Protein Content and Purity determined by:**

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

**Endotoxin Level:**

Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

**Biological Activity:**

The activity is determined by the ability to chemoattract human neutrophils at concentrations between 10-100 ng/mL.

*Products are for research use only. They are not intended for human, animal, or diagnostic applications.*

