

Recombinant Human GRO-Beta (CXCL2) - GRO-beta

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CHM-309
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➤ **Background :**

Three human MGSA/GRO genes encode 3 highly related chemokines, MGSA/GRO alpha, -beta and -gamma. All 3 MGSA/GRO proteins bind to the same receptors, but with differing affinities, and stimulate a number of biological responses including chemotaxis, angiogenesis, and growth regulation.

➤ **Description :**

Recombinant Human GRO-beta produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 73 amino acids and having a molecular mass of 7908 Dalton.
Human GRO-beta is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

➤ **Formulation:**

The protein was lyophilized from a concentrated (1mg/ml) sterile solution containing no additives.

➤ **Solubility:**

It is recommended to reconstitute the lyophilized Human GRO-beta in sterile 18MO-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized Human GRO-beta although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution Human 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 avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

➤ **Amino-Acid Sequence :**

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Pro-Leu-Ala-Thr.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This GRO-beta is fully biologically active when compared to standard. The Biological activity is calculated by its ability to chemoattract CXCR2 transfected 293 cells using 10.0-100.0 ng/ml.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Human GRO-beta .

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm .
2. Analysis by RP-HPLC, using a calibrated solution of Human GRO-beta as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.