

Recombinant Human Growth Regulated Protein-alpha (rh GRO-alpha / CXCL1)

Synonyms: Melanoma growth stimulatory activity (MGSA), Neutrophil-activating protein 3 (NAP-3), chemokine (C-X-C motif) ligand 1, SCYB1.

Introduction: GRO-alpha is a small cytokine belonging to the CXC chemokine family. It is secreted by human melanoma cells, has mitogenic properties and is implicated in melanoma pathogenesis. GRO-alpha is expressed by macrophages, neutrophils and epithelial cells and has neutrophil chemoattractant activity. It plays a role in spinal cord development by inhibiting the migration of oligodendrocyte precursors and is involved in the processes of angiogenesis, inflammation, wound healing and tumorigenesis. It elicits its effects by signaling through the chemokine receptor CXCR2. The gene for GRO-alpha is located on human chromosome 4 amongst genes for other CXC chemokines.

Description: Recombinant human GRO- α produced in E.Coli is a single, non-glycosylated polypeptide chain containing 73 amino acids and having a molecular mass of 7811 Dalton. rh GRO-alpha is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: Lyophilized from a 0.2 μ m filtered solution in 20mM PB, pH 7.4, 50mM NaCl. The samples of 1 μ g contain Trehalose 5% (w/vol) for better recovery

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

Stability: Lyophilized rh GRO-alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18° C . Upon reconstitution rh GRO- α should be stored at 4° C between 2-7 days and for future use below -18°. 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: The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Ser-Val-Ala-Thr.

Endotoxicity: The endotoxin level is less than 1 EU / μ g determined by LAL method.

Biological Activity: Determined by its ability to chemoattract human neutophils cells using a concentration range of 10.0 - 100.0ng/ml.

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 μ g	Cat.N°	11343700
<i>medium</i>	25 μ g	Cat.N°	11343704
<i>large</i>	100 μ g	Cat.N°	11343706
<i>x-large</i>	500 μ g	Cat.N°	11343707

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