

## GRO alpha/CXCL1, Human

**Cat. No.:** Z03303-25

**Size:** 25.0 ug

**Synonyms:** Growth Regulated Protein/Melanoma Growth Stimulatory Activity, GRO  $\alpha$ , MGSA  $\alpha$ , CXCL1, NAP-3, GRO1, KC (murine), CINC (rat)

**Description:**

Chemokine (C-X-C motif) ligand 1 (CXCL1) is a small cytokine belonging to the CXC chemokine family that was previously called GRO1 oncogene, GRO- $\alpha$ , KC, neutrophil-activating protein 3 (NAP-3) and melanoma growth stimulating activity, alpha (MSGA- $\alpha$ ). Human GRO- $\alpha$ , GRO- $\beta$  (MIP2 $\alpha$ ), and GRO- $\gamma$  (MIP2 $\beta$ ) are products of three distinct, nonallelic human genes. GRO- $\beta$  and GRO- $\gamma$  share 90% and 86% amino acid sequence homology with GRO $\alpha$ , respectively. All three isoforms of GRO are CXC chemokines that can signal through the CXCR1 or CXCR2 receptors. GRO expression is inducible by serum or PDGF and/or by a variety of inflammatory mediators, such as IL-1 and TNF, in monocytes, fibroblasts, melanocytes and epithelial cells. In certain tumor cell lines, GRO is expressed constitutively. Similar to other alpha chemokines, the three GRO proteins are potent neutrophil attractants and activators. Additionally, these chemokines are also active toward basophils. All three GROs can bind with high affinity to the IL-8 receptor type B.

Recombinant Human GRO alpha/CXCL1 produced in *E. coli* is a single non-glycosylated polypeptide chain containing 73 amino acids. A fully biologically

active molecule, rhGRO alpha/CXCL1 has a molecular mass of 7.8 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

**Source:** *E. coli*

**Biological Activity:** The EC<sub>50</sub> value of human GRO alpha/CXCL1 on Ca<sup>2+</sup> mobilization assay in CHO-K1/G $\alpha$ 15/hCXCR2 cells (human G $\alpha$ 15 and human CXCR2 stably expressed in CHO-K1 cells) is less than 100ng/ml.

**Molecular Weight:** 7.8 kDa, observed by reducing SDS-PAGE.

**Formulation:** Lyophilized after extensive dialysis against PBS.

**Reconstitution:** Reconstituted in ddH<sub>2</sub>O or PBS at 100  $\mu$ g/ml.

**Purity:** > 95% as analyzed by SDS-PAGE.

**Endotoxin Level:** < 0.2 EU/ $\mu$ g, determined by LAL method.

**Storage:** Lyophilized recombinant Human GRO alpha /CXCL1 remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Human GRO alpha /CXCL1 should be stable up to 1 week at 4°C or up to 3 months at -20°C.