

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant GRO alpha/CXCL1, Human

Catalog Number: BK0069-5µg

Source: Escherichia coli.

Quantity: 5µg

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- α , KC, neutrophil-activating protein 3 (NAP-3) and melanoma growth stimulating activity, alpha (MSGA- α). Human GRO- α , GRO- β (MIP2 α), and GRO- γ (MIP2 β) are products of three distinct, non-allelic human genes. GRO- β and GRO- γ share 90% and 86% amino acid sequence homology with GRO α , 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.

Molecular Weight:

7.8 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE.

Biological Activity:

The EC50 value of human GRO alpha/CXCL1 on Ca²⁺ mobilization assay in CHO-K1/G α 15/hCXCR2 cells (human G α 15 and human CXCR2 stably expressed in CHO-K1 cells) is less than 100ng/ml.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

ASVATELRCQLQTLQGGIHPKNIQSVNVK-
SPGPHCAQTEVIATLKNRKAACLNPA
SPIV-KKIIEKMLNSDKSN

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 µg/ml.

Storage:

Lyophilized recombinant Human GRO alpha /CXCL1 remains stable up to 6 months at -80 °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.

Usage:

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