



GRO/KC (CXCL1), mouse recombinant (rmKC)

Catalog No: 94873
Lot No: XXXXX
Source: *E. coli*
Synonyms: Growth-regulated alpha protein, CXCL1, Platelet-derived growth factor-inducible protein KC, Secretory protein N51, KC, Fsp, N51, gro, Gro1, Mgsa, Scyb1, chemokine (C-X-C motif) ligand 1

Background

Chemokine (C-X-C motif) ligand 1 (CXCL1) is a small cytokine belonging to the CXC chemokine family that was previously called GRO1 oncogene, Neutrophil-activating protein 3 (NAP-3) and melanoma growth stimulating activity, alpha (MSGA-a). It is secreted by human melanoma cells, has mitogenic properties and is implicated in melanoma pathogenesis. CXCL1 is expressed by macrophages, neutrophils and epithelial cells, and has neutrophil chemoattractant activity. CXCL1 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. This chemokine elicits its effects by signaling through the chemokine receptor CXCR2. The gene for CXCL1 is located on human chromosome 4 amongst genes for other CXC chemokines.

Description

GRO1/KC mouse recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 77 amino acids and having a molecular mass of approximately 8 kDa. GRO-1 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized with no additives.

Solubility

It is recommended to reconstitute the lyophilized GRO1 in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized KC, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CXCL1 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 prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

RLATGAPIAN ELRCQCLQTM AGIHLKNIQS LKVLPSGPHC TQTEVIATLK NGREACLDPE APLVQKIVQK MLKGVPK

Activity

The biological activity was determined by measuring the dose dependent mobilization of intracellular calcium (calcium flux) with human neutrophils. Significant calcium mobilization is observed with 50 ng/ml of recombinant mouse KC (specific activity: 2 x 10000 units/mg).

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