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California Bioscience

Product Datasheet

Product Name	Recombinant Human GRO-Alpha (CXCL1)
Cata No	CB500062
Source	*Escherichia Coli.*
Synonyms	Growth-regulated protein alpha, CXCL1, Melanoma growth stimulatory activity, MGSA, Neutrophil-activating protein 3, NAP-3, GRO-alpha (1-73), chemokine (C-X-C motif) ligand 1, GRO1, GROa, SCYB1, MGSA-a, MGSA alpha.

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, Neutrophil-activating protein 3 (NAP-3) and melanoma growth stimulating activity, alpha (MSGA-α). It is secreted by human melanoma cells, has mitogenic properties and is implicated in melanoma pathogenesis. CXCL1 is expressed by macrophages, neutrophilsand 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.

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

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological 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 ≥1ng/mL of recombinant human GRO-alpha.

Purity

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

Formulation

The protein was lyophilized with no additives.

Stability

Lyophilized GRO-alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18℃. Upon reconstitution CXCL1 should be stored at 4℃ between 2-7 days and for future use below -18℃.

Sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Ser-Val-Ala-Thr