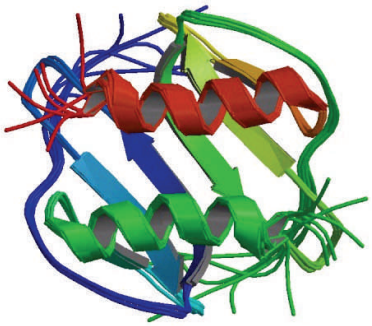
SPECIFICATION SHEET
Rev 082715A

Neutrophil-activating Protein 3

Human, Recombinant (rHuGRO-α/rHuCXCL1)

Expressed in *E. coli*
Cat. No. CRP08142
Lot. No. (See product label)



PDB rendering based on 1mgs.
Available structures: 1mgs, 1msg, 1msh

PRODUCT INFORMATION

Description:The three GRO cDNAs encode 107 amino acid precursor proteins from which the N-terminal 34 amino acid residues are cleaved to generate the mature GROs. There are no potential N-linked glycosylation sites in the amino acid sequences. 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. In addition, these chemokines are also active toward basophils. All three GROs can bind with high affinity to the IL-8 receptor type B.

Amino-Acid Sequence:73aa. non-glycosylated

M. W. : 7.8 kDa

Recombinant:Expressed in *E. coli*

Purity: >97% by SDS-PAGE and HPLC analyses.

Formulation:Lyophilized from a 0.2mm filtered concentrated (1mg/ml) solution in 20mM PB, pH 7.4, 50mM NaCl.

Endotoxin:Less than 1EU/mg of rHuGRO-alpha/CXCL1 as determined by LAL method.

Reconstitution:We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml. Stock solutions should be apportioned into working aliquots and stored at ≤-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage:This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

FOR RESEARCH USE ONLY

GENE INFORMATION

Gene Name:CXCL1
Synonyms:FSP; GRO; GRO1; GROA; GROa; MGSA; MGSA-a; NAP-3; SCYB1; MGSA alpha; C-X-C motif chemokine 1; GRO1 oncogene (melanoma growth stimulating activity, alpha); GRO1 oncogene (melanoma growth-stimulating activity); Melanoma growth stimulatory activity; Neutrophil-activating protein 3; chemokine (C-X-C motif) ligand 1; chemokine (C-X-C motif) ligand 1 (melanoma growth stimulating activity, alpha); fibroblast secretory protein; melanoma growth stimulatory activity alpha;GROA_HUMAN; Growth-regulated alpha protein [Precursor]; GRO-alpha(1-73).
UniProt ID:P09341
mRNA Refseq:NM_001511
Protein Refseq:NP_001502
MIM:155730
GeneID:2919
Chromosome Location:4q21
Pathway:Cytokine-cytokine receptor interaction; Epithelial cell signaling in Helicobacter pylori infection
Function:chemokine activity; enzyme activator activity; growth factor activity.

REFERENCES

1.Anisowicz, A., Bardwell, L., Sager, R. Constitutive overexpression of a growth-regulated gene in transformed Chinese hamster and human cells. Proc. Nat. Acad. Sci. 1987; 84: 7188-7192.

2.Iida N, Grotendorst GR. Cloning and sequencing of a new gro transcript from activated human monocytes: expression in leukocytes and wound tissue. Mol Cell Biol. 1990;10 (10):5596-5599.

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