

Product Information

GRO α human

Recombinant expressed in *E. coli*, Cell culture tested

G0657

Storage Temperature: –20 °C

Synonyms: Melanoma Growth Stimulating Activity; MGSA

Product Description

The GRO gene was originally identified by subtractive hybridization studies between normal and tumorigenic Chinese hamster embryo fibroblasts.¹ The hamster cDNA was cloned and used as a probe for cloning of the human GRO cDNA. The GRO α gene initially cloned from T24 cells¹ and the gene in melanoma cells encoding melanoma growth stimulating protein (MGSA) are identical.² Human cells contain three closely related, but distinct GRO genes, GRO α , GRO β , and GRO γ .³ GRO β and GRO γ share 90% and 86% identity, respectively, with GRO α at the nucleotide level. The GRO gene has been mapped to chromosome 4q21.²

GROs are members of the chemokine α family that is characterized by the separation with one amino acid of the first two cysteine residues, C-X-C, in the amino acid sequence.⁴ In normal cells, human mRNA GRO expression is found in foreskin fibroblasts,¹ synovial fibroblasts, chondrocytes, and osteocytes.⁵ Additionally, GRO mRNA has been detected in mammary fibroblasts, mammary epithelial cells,³ endothelial cells,³ activated monocytes, macrophages, and neutrophils.³ Characterization of the GRO α receptor indicates the presence of low and high affinity receptors on human neutrophils.⁴

The product is supplied lyophilized from a 0.2 μ m filtered solution in Acetonitrile and TFA with BSA as a carrier protein.

The biological activity of GRO α was measured by its ability to induce myeloperoxidase release from cytochalasin treated neutrophils⁶ or by the ability to induce chemoattract BaF3 mouse pro-B cells transfected with human CXCR2.

Purity: \geq 97% (SDS-PAGE)

Endotoxin: <0.01 EU per 1 μ g of the protein

Molecular Mass: \sim 7.9 kDa

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute at 100 μ g/mL in sterile PBS containing at least 0.1% Human or Bovine Serum Albumin.

Storage/Stability

Prior to reconstitution, store at –20 °C. After reconstitution, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots at –20 °C. Repeated freezing and thawing is not recommended.

References

1. Anisowicz, A., et al., Proc. Natl. Acad. Sci. USA, 84, 7188 (1987).
2. Richmond, A., et al., EMBO J., 7, 2025 (1988).
3. Haskill, S., et al., Proc. Natl. Acad. Sci. USA, 87, 7732 (1990).
4. Sager, R., et al., Cytokines, Vol. 4, 96 (1992).
5. Goldring, M., et al., J. Bone Miner. Res., 4, 402 (1989).
6. Shroder, J., et al., J. Immunol., 139, 3474 (1987).

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23215213pis Rev 05/25

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