Product Description

GRO (growth-regulated oncogene)-beta or CXCL2 is a member of CXC family, which plays an integral role in recruitment and activation of neutrophils and basophils in response to tissue injury and microbial infection. GRO-beta and GRO-gamma are closely related to GRO-alpha and share 90% and 86% amino acid sequence homology, respectively, with GRO-alpha. Receptor-binding studies have demonstrated that GRO-alpha, -beta, and -gamma signal mainly through G protein-coupled receptors CXCR1 and CXCR2 (Ahuja & Murphy). GRO-beta is expressed in epithelial cells, monocytes, fibroblasts, and melanocytes and is further induced during inflammatory, epithelialization, and angiogenic processes, for example during the wound healing process of human burn wounds (Zaja-Milatovic & Richmond). GRO-beta also stimulates mitogenesis in certain human melanoma cells (Unemori et al.).

Product Information

Alternative Names: CXCL2, GRO2, Growth regulated protein, Macrophage inflammatory protein-2α, Melanoma growth stimulatory activity, MGSAβ, MIP-2α

Accession Number: P19875

Amino Acid Sequence: APLATELRCQ CLQTLQGIHL KNIQSVKVKS PGPHCAQTEV IATLKNGQKA CLNPASPMVK KIIEKMLNG KSN

Predicted Molecular Mass: 7.9 kDa

Species: Human

Cross Reactivity: Mouse

Formulation: Lyophilized after dialysis against phosphate-buffered saline.

Source: E. coli

Specifications

Activity: The specific activity is ≥ 5.0 x 10^3 units/mg (EC50 ≤ 0.2 μg/mL) as determined by Ca2+ mobilization assay in CHO-K1/Gα15/hCXCR2 cells (human Ga15 and human CXCR2 stably expressed in CHO-K1 cells).

Purity: ≥ 95%

Endotoxin Level: Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/μg protein.

Preparation and Storage

Store at -80°C.

Stable as supplied for 12 months from date of receipt.

Centrifuge vial before opening. Resuspend the product in sterile water or phosphate-buffered saline to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at 2 - 8°C for up to 1 week or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.
(A) The biological activity of Human Recombinant GRO-beta (CXCL2) was tested by its ability to mobilize Ca2+ in CHO-K1/Gα15/hCXCR2 cells (human Gα15 and human CXCR2 stably expressed in CHO-K1 cells). Ca2+ mobilization was measured using a fluorometric assay method. The EC50 is defined as the effective concentration of the growth factor at which Ca2+ mobilization is at 50% of maximum. The EC50 in the above example is less than 0.2 μg/mL.

(B) 2 μg of Human Recombinant GRO-beta (CXCL2) was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining.

Related Products

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References

