SANTA CRUZ BIOTECHNOLOGY, INC.

GROα (5G11): sc-130316



BACKGROUND

Chemokines are members of a superfamily of small, inducible, secreted, pro-inflammatory cytokines. Members of the chemokine family exhibit 20% to 50% homology in their predicted amino acid sequences and are divided into four subfamilies. In the C-X-C or α subfamily, the first two of four cysteine motifs are separated by another amino acid residue. The C-X-C chemokine subfamily includes IL-8, GRO $\alpha/\beta/\gamma$ (and the murine homologs KC, MIP-2 α and MIP-2_β), platelet basic protein, ENA-78, GCP-2, PF4, IP-10 (and its murine homolog, CRG) and MIG. GRO α , β and γ (growth-related onconge $\alpha/\beta/\gamma$) are C-X-C chemokines important for the regulation of cell motility and growth. They function as neutrophil chemoattractants and mediators of angiogenesis. The GRO proteins may play a role in melanocyte progression to malignant melanoma.

REFERENCES

- 1. Oppenheim, J.J., et al. 1991. Properties of the novel proinflammatory supergene "intercrine" cytokine family. Annu. Rev. Immunol. 9: 617-648.
- 2. Schall, T.J. 1991. Biology of the RANTES/SIS cytokine family. Cytokine 3: 165-183
- 3. Miller, M.D., et al. 1992. Biology and biochemistry of the chemokines: a family of chemotactic and inflammatory cytokines. Crit. Rev. Immunol. 12: 17-46.
- 4. Taub. D.D., et al. 1993. Review of the chemokine meeting of the third international symposium of chemotactic cytokines. Cytokine 5: 175-179.
- 5. Roth, S.J., et al. 1995. C-C chemokines, but not the C-X-C chemokines interleukin-8 and interferon-y inducible protein-10, stimulate transendothelial chemotaxis of T lymphocytes. Eur. J. Immunol. 25: 3482-3488.
- 6. Godiska, R., et al. 1995. Chemokine expression in murine experimental allergic encephalomyelitis. J. Neuroimmunol. 58: 167-176.
- 7. Cook, D.N. 1996. The role of MIP-1 α in inflammation and hematopoiesis. J. Leukoc. Biol. 59: 61-66.
- 8. Li, J. and Sidell, N. 2005. Growth-related oncogene produced in human breast cancer cells and regulated by Syk protein-tyrosine kinase. Int. J. Cancer 117: 14-20.

CHROMOSOMAL LOCATION

Genetic locus: CXCL1 (human) mapping to 4q13.3.

SOURCE

 $GRO\alpha$ (5G11) is a mouse monoclonal antibody raised against recombinant $GRO\alpha$ of human origin.

PRODUCT

Each vial contains 200 μ g lgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

GRO α (5G11) is recommended for detection of GRO α of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GRO α siRNA (h): sc-43816, GRO α shRNA Plasmid (h): sc-43816-SH and GRO α shRNA (h) Lentiviral Particles: sc-43816-V.

Molecular Weight of GROa: 8 kDa.

DATA



human recombinant GRO α

SELECT PRODUCT CITATIONS

- 1. Nencioni, A., et al. 2014. Nicotinamide phosphoribosyltransferase inhibition reduces intraplaque CXCL1 production and associated neutrophil infiltration in atherosclerotic mice. Thromb. Haemost. 111: 308-322.
- 2. Lu, B., et al. 2017. Effect of CCL2 siRNA on proliferation and apoptosis in the U251 human glioma cell line. Mol. Med. Rep. 16: 3387-3394.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.