SANTA CRUZ BIOTECHNOLOGY, INC.

GCP-2 (L-15): sc-103487

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chemokines are members of a superfamily of 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, GROα/β/γ (and the murine homologs KC, MIP-2α and MIP-2β), platelet basic protein, ENA-78, GCP-2, PF4, IP-10 (and its murine homolog, CRG) and MIG. Granulocyte Chemotactic Protein 2 (GCP-2) acts as a potent chemoattractant of neutrophils in the course of acute inflammation. GCP-2 is highly produced by MG-63 osteosarcoma cells and induces neovascularization, suggesting that it may be involved in tumor development and metastasis formation. GCP-2 is the only ELR+-CXC chemokine, except for IL-8, that is an effective ligand for CXCR1 and CXCR2.

REFERENCES

1. Oppenheim, J.J., Zachariae, C.O., Mukaida, N. and Matsushima, K. 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. and Krangel, M.S. 1992. Biology and biochemistry of the chemokines: a family of chemotactic and inflammatory cytokines. Crit. Rev. Immunol. 12: 17-46.
4. Taub, D.D. and Oppenheim, J.J. 1993. Review of the Chemokine Meeting of the Third International Symposium of Chemotactic Cytokines. Cytokine 5: 175-179.
5. Roth, S.J., Carr, M.W. and Springer, T.A. 1995. C-C chemokines, but not the C-X-C chemokines interleukin-8 and interferon-γ inducible protein-10, stimulate transendothelial chemotaxis of T lymphocytes. Euro. J. Immunol. 25: 3482-3488.
6. Godiska, R., Chantry, D., Dietsch, G.N. and Gray, P.W. 1995. Chemokine expression in murine experimental allergic encephalomyelitis. J. Neuroimmunol. 58: 167-176.
7. Cook, D.N. 1996. The role of MIP-1α in inflammation and hematopoiesis. J. Leukoc. Biol. 59: 61-66.

CHROMOSOMAL LOCATION

Genetic locus: Cxcl5 (mouse) mapping to 5 E1.

SOURCE

GCP-2 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GCP-2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-103487 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GCP-2 (L-15) is recommended for detection of GCP-2 of mouse 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GCP-2 siRNA (m): sc-105329, GCP-2 shRNA Plasmid (m): sc-105329-SH and GCP-2 shRNA (m) Lentiviral Particles: sc-105329-V.

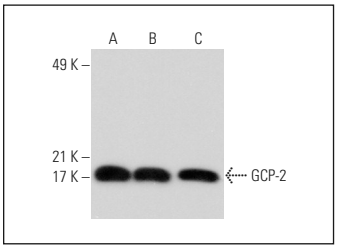
Molecular Weight of GCP-2: 8 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, CSMLO whole cell lysate: sc-364369 or C2C12 whole cell lysate: sc-364188.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GCP-2 (L-15): sc-103487. Western blot analysis of GCP-2 expression in NIH/3T3 (**A**), CSMLO (**B**) and C2C12 (**C**) whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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