SANTA CRUZ BIOTECHNOLOGY, INC.

IP-10 (K-19): sc-14639

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: C-C, C-X-C, C and C-X3-C. In the C-X-C or α subfamily, the first two of four cysteine motifs are separated by another amino acid residue. In the second subfamily, designated C-C or β, the first cysteines are adjacent. C subfamily members, also designated γ chemokines, lack the first and third cysteine residues of the conserved motif. In the C-X3-C, or δ subfamily, members have three amino acids between the two cysteines. 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.

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. Eur. 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: CXCL10 (human) mapping to 4q21.1; Cxcl10 (mouse) mapping to 5 E2.

SOURCE

IP-10 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IP-10 of human 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-14639 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IP-10 (K-19) is recommended for detection of IP-10 of human and, to a lesser extent, mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

IP-10 (K-19) is also recommended for detection of IP-10 in additional species, including bovine.

Suitable for use as control antibody for IP-10 siRNA (h): sc-43866, IP-10 siRNA (m): sc-108021, IP-10 shRNA Plasmid (h): sc-43866-SH, IP-10 shRNA Plasmid (m): sc-108021-SH, IP-10 shRNA (h) Lentiviral Particles: sc-43866-V and IP-10 shRNA (m) Lentiviral Particles: sc-108021-V.

Molecular Weight of IP-10: 10 kDa.

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) 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.

SELECT PRODUCT CITATIONS

1. Noguchi, A., Watanabe, K., Narumi, S., Yamagami, H., Fujiwara, Y., Higuchi, K., Oshitani, N. and Arakawa, T. 2007. The production of interferon-γ-inducible protein 10 by granulocytes and monocytes is associated with ulcerative colitis disease activity. J. Gastroenterol. 42: 947-956.
2. Hosomi, S., Oshitani, N., Kamata, N., Sogawa, M., Okazaki, H., Tanigawa, T., Yamagami, H., Watanabe, K., Tominaga, K., Watanabe, T., Fujiwara, Y., Maeda, K., Hirakawa, K. and Arakawa, T. 2011. Increased numbers of immature plasma cells in peripheral blood specifically overexpress chemokine receptor CXCR3 and CXCR4 in patients with ulcerative colitis. Clin. Exp. Immunol. 163: 215-224.

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.