# SANTA CRUZ BIOTECHNOLOGY, INC.

# IP-10 (I-15): sc-14642



# 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  $\alpha$  subfamily, the first two of four cysteine motifs are separated by another amino acid residue. In the second subfamily, designated C-C or  $\beta$ , the first cysteines are adjacent. C subfamily members, also designated  $\gamma$  chemokines, lack the first and third cysteine residues of the conserved motif. In the C-X3-C, or  $\delta$  subfamily, members have three amino acids between the two cysteines. The C-X-C chemokine subfamily includes IL-8, GRO $\alpha/\beta/\gamma$  (and the murine homologs KC, MIP-2 $\alpha$  and MIP-2 $\beta$ ), platelet basic protein, ENA-78, GCP-2, PF4, IP-10 (and its murine homolog, CRG) and MIG.

## REFERENCES

- 1. Oppenheim, J.J., et al. 1991. Properties of the novel proinflammatory supergene "intercrine" cytokine family. Ann. Rev. Immunol. 9: 617-648.
- 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.

#### CHROMOSOMAL LOCATION

Genetic locus: Cxcl10 (mouse) mapping to 5 E2.

### SOURCE

IP-10 (I-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IP-10 of mouse origin.

### PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14642 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### **APPLICATIONS**

IP-10 (I-15) is recommended for detection of IP-10 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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 IP-10 siRNA (m): sc-108021, I IP-10 shRNA Plasmid (m): sc-108021-SH 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) 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



IP-10 (I-15): sc-14642. Western blot analysis of mouse recombinant IP-10.

# SELECT PRODUCT CITATIONS

- Bermudez-Humaran, L.G., et al. 2005. A novel mucosal vaccine based on live *Lactococci* expressing E7 antigen and IL-12 induces systemic and mucosal immune responses and protects mice against human papillomavirus type 16-induced tumors. J. Immunol. 175: 7297-7302.
- Villatoro-Hernandez, J., et al. 2009. Murine interferon-γ inducible protein-10 (IP-10) secreted by *Lactococcus lactis* chemoattracts human CD3+ lymphocytes. Biotechnol. Lett. 31: 1795-1800.

#### **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.

#### MONOS Try Satisfation mo Guaranteed

Try **IP-10 (E-2): sc-374092**, our highly recommended monoclonal alternative to IP-10 (I-15).