

## IP-10 (C-19): sc-1406

### 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. *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- $\gamma$  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.

### CHROMOSOMAL LOCATION

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

### SOURCE

IP-10 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IP-10 of mouse origin.

### PRODUCT

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

Blocking peptide available for competition studies, sc-1406 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

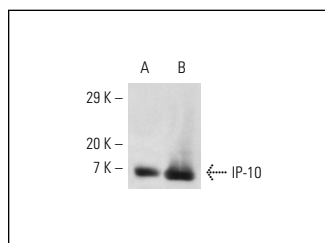
### APPLICATIONS

IP-10 (C-19) is recommended for detection of IP-10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

### DATA



IP-10 (C-19): sc-1406. Western blot analysis of human recombinant (A) and mouse recombinant (B) IP-10.

### SELECT PRODUCT CITATIONS

1. Yoneyama, H., et al. 2002. Pivotal role of dendritic cell-derived CXCL10 in the retention of T helper cell 1 lymphocytes in secondary lymph nodes. *J. Exp. Med.* 195: 1257-1266.
2. Morimoto, J., et al. 2004. CXC chemokine ligand 10 neutralization suppresses the occurrence of diabetes in nonobese diabetic mice through enhanced  $\beta$  cell proliferation without affecting insulinitis. *J. Immunol.* 173: 7017-7024.
3. Grunbaum-Novak, N., et al. 2008. Relationship between antidepressants and IGF-1 system in the brain: possible role in cognition. *Eur. Neuropsychopharmacol.* 18: 431-438.
4. von Schille, M.A., et al. 2012. Lactocin secreted by *Lactobacillus* exerts anti-inflammatory effects by selectively degrading proinflammatory chemokines. *Cell Host Microbe.* 11: 387-396.

### RESEARCH USE

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



Try **IP-10 (E-2): sc-374092** or **IP-10 (1): sc-101500**, our highly recommended monoclonal alternatives to IP-10 (C-19).