SANTA CRUZ BIOTECHNOLOGY, INC.

MIP-2 (C-19): sc-1388

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 residues are separated by a single amino acid. In C-C (or β) subfamily, the first two cysteines are adjacent. C subfamily members, also designated γ chemokines, lack the first and third cysteine residues of the conserved motif. C-C chemokines are chemoattractants and activators for monocytes and T cells. C-C subfamily members include macrophage inflammatory protein (MIP)-1α, MIP-1β, MIP-2, MIP-3α, MIP-3β, MIP-4, HCC-1, MIP-5 (or HCC-2), RANTES, MCP-1/2/3 (and the murine homologs JE and MARC), I-309, murine C10 and TCA3.

REFERENCES

1. Zipfel, P.F., et al. 1989. Mitogenic activation of human T cells induces two closely related genes which share structural similarities with a new family of secreted factors. J. Immunol. 142: 1582-1590.
2. Widmer, U., et al. 1993. Genomic cloning and promoter analysis of macrophage inflammatory protein (MIP)-2, MIP-1α, and MIP-1β, members of the chemokine superfamily of proinflammatory cytokines. J. Immunol. 150: 4996-5012.
3. Schall, T.J., et al. 1993. Human macrophage inflammatory protein α (MIP-1α) and MIP-1β chemokines attract distinct populations of lymphocytes. J. Exp. Med. 177: 1821-1826.
4. Uguccione, M., et al. 1995. Actions of the chemotactic cytokines MCP-1, MCP-2, MCP-3, RANTES, MIP-1α and MIP-1β on human monocytes. Eur. J. Immunol. 25: 64-68.
5. Cocchi, F., et al. 1995. Identification of RANTES, MIP-1α, and MIP-1β as the major HIV-suppressive factors produced by $CD8^+$ T cells. Science 270: 1811-1815.
6. Cook, D.N. 1996. The role of MIP-1α in inflammation and hematopoiesis. J. Leukoc. Biol. 59: 61-66.
7. Taub, D.D., et al. 1996. β chemokines costimulate lymphocyte cytolysis, proliferation, and lymphokine production. J. Leukoc. Biol. 59: 81-89.

CHROMOSOMAL LOCATION

Genetic locus: Cxcl2 (mouse) mapping to 5 E1.

SOURCE

MIP-2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MIP-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-1388 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MIP-2 (C-19) is recommended for detection of MIP-2 of mouse and rat 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); may cross-react with GRO1 and, to a lesser extent, mouse CXCL5 and rat MIP-2α/β.

Suitable for use as control antibody for MIP-2 siRNA (m): sc-45997, MIP-2 shRNA Plasmid (m): sc-45997-SH and MIP-2 shRNA (m) Lentiviral Particles: sc-45997-V.

Molecular Weight of MIP-2: 8 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.

SELECT PRODUCT CITATIONS

1. Jordan, M., et al. 1995. Neutralization of endogenous IL-6 suppresses induction of IL-1 receptor antagonist. J. Immunol. 154: 4081-4090.
2. Liu, J., et al. 2001. Stress-related gene expression in mice treated with inorganic arsenicals. Toxicol. Sci. 61: 314-320.
3. Miñano, F.J., et al. 2004. Role of endogenous macrophage inflammatory protein-2 in regulating fever induced by bacterial endotoxin in normal and immunosuppressed rats. Clin. Exp. Pharmacol. Physiol. 31: 723-731.
4. Niemann, C.U., et al. 2008. Short passive cooling protects rats during hepatectomy by inducing heat shock proteins and limiting the induction of pro-inflammatory cytokines. J. Surg. Res. 153: 43-52.
5. Yilmaz, S., et al. 2013. Mesenchymal stem cell: does it work in an experimental model with acute respiratory distress syndrome? Stem Cell Rev. 9: 80-92.

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.