SANTA CRUZ BIOTECHNOLOGY, INC.

MIP-1α (M-20): sc-1383

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chemokines are members of a superfamily of small inducible, secreted, pro-inflammatory cytokines. Members of the chemokine family exhibit 20-50% homology in their predicted amino acid sequences and are divided into 4 sub-families. In the C-C (or β) subfamily, the first two cysteines are adjacent. 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. Research has shown that MIP-1β is more selective than MIP-1α, primarily attracting $CD4^+$ T lymphocytes, with a preference for T cells of the naive phenotype. MIP-1α is a more potent lymphocyte chemoattractant than MIP-1β and exhibits a broader range of chemoattractant specificities. It has been suggested that $CD8^+$ T lymphocytes are involved in the control of HIV infection *in vivo* by the release of HIV-suppressive factors (HIV-SF). MIP-1α has been identified as one of the major HIV-SFs produced by $CD8^+$ T cells, along with MIP-1β and RANTES. Recombinant human MIP-1α acts as an inhibitor of different strains of HIV-1, HIV-2 and SIV infection in a dose-dependent manner.

CHROMOSOMAL LOCATION

Genetic locus: Ccl3 (mouse) mapping to 11 C.

SOURCE

MIP-1α (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MIP-1α 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-1383 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MIP-1α (M-20) is recommended for detection of MIP-1α 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).

Suitable for use as control antibody for MIP-1α siRNA (m): sc-44722, MIP-1α shRNA Plasmid (m): sc-44722-SH and MIP-1α shRNA (m) Lentiviral Particles: sc-44722-V.

Molecular Weight of MIP-1α: 10 kDa.

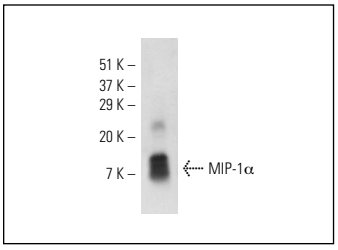
RECOMMENDED SECONDARY REAGENTS

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.

STORAGE

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

DATA



MIP-1α (M-20): sc-1383. Western blot analysis of mouse recombinant MIP-1α.

SELECT PRODUCT CITATIONS

1. Bonwetsch, R., et al. 1999. Role of HIV-1 Tat and CC chemokine MIP-1α in the pathogenesis of HIV associated central nervous system disorders. J. Neurovirol. 5: 685-694.
2. Bennouna, S., et al. 2003. Cross-talk in the innate immune system: neutrophils instruct recruitment and activation of dendritic cells during microbial infection. J. Immunol. 171: 6052-6058.
3. Chapoval, S.P., et al. 2009. Lung vascular endothelial growth factor expression induces local myeloid dendritic cell activation. Clin. Immunol. 132: 371-384.
4. Guzik-Kornacka, A., et al. 2011. Status epilepticus evokes prolonged increase in the expression of CCL3 and CCL4 mRNA and protein in the rat brain. Acta Neurobiol. Exp. 71: 193-207.
5. Fong, Y.C., et al. 2012. CCN6 enhances ICAM-1 expression and cell motility in human chondrosarcoma cells. J. Cell. Physiol. 227: 223-232.
6. Mounier, R., et al. 2013. AMPKα1 regulates macrophage skewing at the time of resolution of inflammation during skeletal muscle regeneration. Cell Metab. 18: 251-264.

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.