

MIP-1 α (N-20): sc-1382

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 four subfamilies. 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)-1 α , MIP-1 β , MIP-2, MIP-3 α , MIP-3 β , 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-1 β is more selective than MIP-1 α , primarily attracting CD4⁺ T lymphocytes, with a preference for T cells of the naive phenotype. MIP-1 α is a more potent lymphocyte chemoattractant than MIP-1 β 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-1 α has been identified as one of the major HIV-SFs produced by CD8⁺ T cells, along with MIP-1 β and RANTES. Recombinant human MIP-1 α acts as an inhibitor of different strains of HIV-1, HIV-2 and SIV infection in a dose-dependent manner.

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-1 α and MIP-1 β , 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-1 α) and MIP-1 β chemokines attract distinct populations of lymphocytes. *J. Exp. Med.* 177: 1821-1826.
4. Ugucione, M., et al. 1995. Actions of the chemotactic cytokines MCP-1, MCP-2, MCP-3, RANTES, MIP-1 α and MIP-1 β on human monocytes. *Eur. J. Immunol.* 25: 64-68.
5. Cocchi, F., et al. 1995. Identification of RANTES, MIP-1 α and MIP-1 β as the major HIV-suppressive factors produced by CD8⁺ T cells. *Science* 270: 1811-1815.

CHROMOSOMAL LOCATION

Genetic locus: CCL3/CCL3L1/CCL3L3 (human) mapping to 17q12.

SOURCE

MIP-1 α (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of MIP-1 α of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1382 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

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

MIP-1 α (N-20) is also recommended for detection of MIP-1 α in additional species, including porcine.

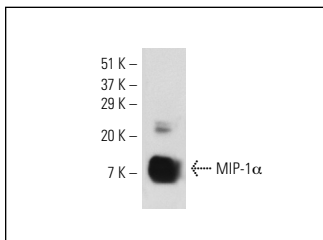
Suitable for use as control antibody for MIP-1 α siRNA (h): sc-43933, MIP-1 α shRNA Plasmid (h): sc-43933-SH and MIP-1 α shRNA (h) Lentiviral Particles: sc-43933-V.

Molecular Weight of MIP-1 α : 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.

DATA



MIP-1 α (N-20): sc-1382. Western blot analysis of human recombinant MIP-1 α .

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
Satisfaction
Guaranteed

Try **MIP-1 α (D-3): sc-166942** or **MIP-1 α (F-8): sc-166911**, our highly recommended monoclonal alternatives to MIP-1 α (N-20).