SANTA CRUZ BIOTECHNOLOGY, INC.

MDC (C-18): sc-12285

BACKGROUND

Chemokines have been implicated in the regulation of stem/progenitor cell proliferation and movement. The C-C chemokines TARC (for thymus and activation-regulated chemokine, also designated small inducible cytokine A17) and MDC (for macrophage-derived chemokine, also designated small inducible cytokine A22 or STCP-1, for stimulated T cell chemotactic protein 1), are expressed in the thymus and spleen. C-C chemokine receptor CCR4, expressed by T helper type 2 polarized cells, is a high affinity receptor for both TARC and MDC. TARC is important in the recognition of skin vasculature by circulating T cells and in directing lymphocytes that are involved in systemic as opposed to intestinal immunity to its target tissues. MDC is involved in chronic inflammation and dendritic cell and lymphocyte homing. MDC and TARC lack suppressive activity against immature subsets of myeloid progenitors, which have been stimulated to proliferate by multiple growth factors.

REFERENCES

1. Broxmeyer, H.E., et al. 1999. Effects of C-C, C-X-C, C and CX3C chemokines on proliferation of myeloid progenitor cells, and insights into SDF-1-induced chemotaxis of progenitors. Ann. N.Y. Acad. Sci. 872: 142-162.
2. Campbell, J.J., et al. 1999. The chemokine receptor CCR4 in vascular recognition by cutaneous but not intestinal memory T cells. Nature 400: 776-780.
3. Chvatchko, Y., et al. 2000. A key role for C-C chemokine receptor 4 in lipopolysaccharide-induced endotoxic shock. J. Exp. Med. 191: 1755-1764.
4. Matsukawa, A., et al. 2000. Pivotal role of the C-C chemokine, macrophage-derived chemokine, in the innate immune response. J. Immunol. 164: 5362-5368.
5. Galli, G., et al. 2000. Macrophage-derived chemokine production by activated human T cells *in vitro* and *in vivo*: preferential association with the production of type 2 cytokines. Eur. J. Immunol. 30: 204-210.

CHROMOSOMAL LOCATION

Genetic locus: CCL22 (human) mapping to 16q13.

SOURCE

MDC (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MDC of human 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-12285 P, (100 µg 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

MDC (C-18) is recommended for detection of MDC of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

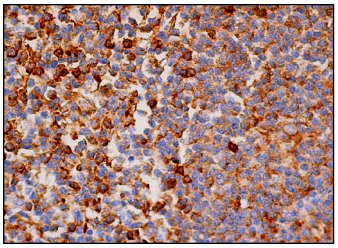
Suitable for use as control antibody for MDC siRNA (h): sc-39359, MDC shRNA Plasmid (h): sc-39359-SH and MDC shRNA (h) Lentiviral Particles: sc-39359-V.

Molecular Weight of MDC: 3 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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



MDC (C-18): sc-12285. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in germinal center and cells n non-germinal center.

SELECT PRODUCT CITATIONS

1. Marchal-Sommé, J., et al. 2006. Cutting edge: nonproliferating mature immune cells form a novel type of organized lymphoid structure in idiopathic pulmonary fibrosis. J. Immunol. 176: 5735-5739.

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.