

MCP-1 (M-18): sc-1784

BACKGROUND

Eotaxin and the monocyte chemotactic proteins, MCP-1-5, form a subfamily of the C-C (or β) chemokines, which are characterized by a set of conserved adjacent cysteines. MCPs are produced by a variety of cells, including T lymphocytes, subsequent to their activation with cytokines such as IL-1, TNF α and IFN- γ . *In vitro* studies have shown that the MCP isoforms exhibit their chemotactic effects on different subpopulations of lymphocytes. MCP-1 is a potent basophil activator but does not affect eosinophils. MCP-1 levels are increased during infection and inflammation, which are both characterized by leukocyte infiltration. Two MCP-1 receptors, which differ in their carboxy-termini, have been identified.

REFERENCES

1. Charo, I.F., et al. 1994. Molecular cloning and functional expression of two monocyte chemoattractant protein 1 receptors reveals alternative splicing of the carboxyl-terminal tails. *Proc. Natl. Acad. Sci. USA* 91: 2752-2756.
2. Weber, M., et al. 1995. Monocyte chemotactic protein MCP-2 activates human basophil and eosinophil leukocytes similar to MCP-3. *J. Immunol.* 154: 4166-4172.

CHROMOSOMAL LOCATION

Genetic locus: Ccl2 (mouse) mapping to 11 B5.

SOURCE

MCP-1 (M-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MCP-1 of mouse 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-1784 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MCP-1 (M-18) is recommended for detection of MCP-1 of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (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 MCP-1 siRNA (m): sc-43914, MCP-1 shRNA Plasmid (m): sc-43914-SH and MCP-1 shRNA (m) Lentiviral Particles: sc-43914-V.

Molecular Weight of MCP-1: 12 kDa.

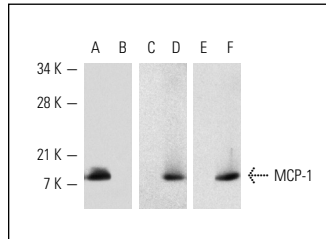
STORAGE

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

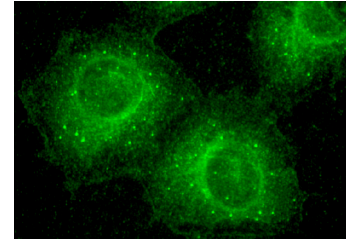
RESEARCH USE

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

DATA



Western blot analysis of human recombinant MCP-1 (A, C, E) and mouse recombinant MCP-1 (B, D, F). Antibodies tested include MCP-1 (C-17): sc-1304 (A, B), MCP-1 (M-18): sc-1784 (C, D) and MCP-1 (R-17): sc-1785 (E, F).



MCP-1 (M-18): sc-1784. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and extracellular localization.

SELECT PRODUCT CITATIONS

1. Guo, J., et al. 2005. Repopulation of apolipoprotein E knockout mice with CCR2-deficient bone marrow progenitor cells does not inhibit ongoing atherosclerotic lesion development. *Arterioscler. Thromb. Vasc. Biol.* 25: 1014-1019.
2. Izumi, Y., et al. 2005. Important role of apoptosis signal-regulating kinase 1 in ischemia-induced angiogenesis. *Arterioscler. Thromb. Vasc. Biol.* 25: 1877-1883.
3. Pols, T.W., et al. 2010. 6-mercaptopurine inhibits atherosclerosis in apolipoprotein E*3-Leiden transgenic mice through atheroprotective actions on monocytes and macrophages. *Arterioscler. Thromb. Vasc. Biol.* 30: 1591-1597.
4. Zhang, L., et al. 2010. Aging-related atherosclerosis is exacerbated by arterial expression of tumor necrosis factor receptor-1: evidence from mouse models and human association studies. *Hum. Mol. Genet.* 19: 2754-2766.
5. Ka, S.M., et al. 2010. (S)-armepavine from Chinese medicine improves experimental autoimmune crescentic glomerulonephritis. *Rheumatology* 49: 1840-1851.
6. Tsai, P.Y., et al. 2011. Antroquinonol reduces oxidative stress by enhancing the Nrf2 signaling pathway and inhibits inflammation and sclerosis in focal segmental glomerulosclerosis mice. *Free Radic. Biol. Med.* 50: 1503-1516.
7. Ka, S.M., et al. 2011. Decoy receptor 3 inhibits renal mononuclear leukocyte infiltration and apoptosis and prevents progression of IgA nephropathy in mice. *Am. J. Physiol. Renal Physiol.* 301: F1218-F1230.

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Try **MCP-1 (ECE.2): sc-52701**, our highly recommended monoclonal alternative to MCP-1 (M-18).