

MCP-1 (5J): sc-32771



The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: CCL2 (human) mapping to 17q12.

SOURCE

MCP-1 (5J) is a mouse monoclonal antibody raised against recombinant MCP-1 of human origin.

PRODUCT

Each vial contains 200 μ g IgG γ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for neutralizing, sc-32771 L, 200 μ g/0.1 ml.

MCP-1 (5J) is available conjugated to agarose (sc-32771 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-32771 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32771 PE), fluorescein (sc-32771 FITC), Alexa Fluor[®] 488 (sc-32771 AF488), Alexa Fluor[®] 546 (sc-32771 AF546), Alexa Fluor[®] 594 (sc-32771 AF594) or Alexa Fluor[®] 647 (sc-32771 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-32771 AF680) or Alexa Fluor[®] 790 (sc-32771 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MCP-1 (5J) is recommended for detection of MCP-1 of human 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for MCP-1 siRNA (h): sc-43913, MCP-1 shRNA Plasmid (h): sc-43913-SH and MCP-1 shRNA (h) Lentiviral Particles: sc-43913-V.

Molecular Weight of MCP-1: 12 kDa.

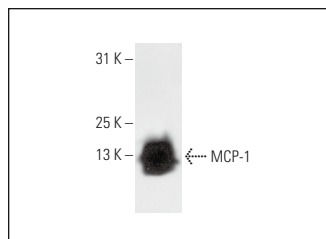
STORAGE

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

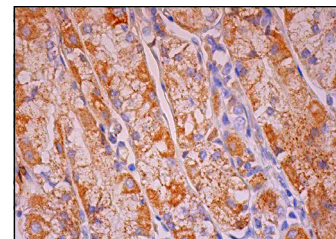
RESEARCH USE

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

DATA



MCP-1 (5J): sc-32771. Western blot analysis of human recombinant MCP-1.



MCP-1 (5J): sc-32771. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Ramesh, G., et al. 2013. The Lyme disease spirochete *Borrelia burgdorferi* induces inflammation and apoptosis in cells from dorsal root ganglia. *J. Neuroinflammation* 10: 88.
2. Prado, A.A., et al. 2015. Characterization of mesenchymal stem cells derived from the equine synovial fluid and membrane. *BMC Vet. Res.* 11: 281.
3. Bongrani, A., et al. 2019. Expression of adipokines in seminal fluid of men of normal weight. *Asian J. Androl.* 21: 528-530.
4. Lien, M.Y., et al. 2020. Monocyte chemoattractant protein 1 promotes VEGF-A expression in OSCC by activating ILK and MEK1/2 signaling and downregulating miR-29c. *Front. Oncol.* 10: 592415.
5. Chen, X.C., et al. 2022. Metformin improves renal injury of MRL/lpr lupus-prone mice via the AMPK/STAT3 pathway. *Lupus Sci. Med.* 9: e000611.
6. Liu, X.Q., et al. 2022. Tight junction protein 1 promotes vasculature remodeling via regulating USP2/TWIST1 in bladder cancer. *Oncogene* 41: 502-514.
7. Tapia Cáceres, F., et al. 2022. Relaxin inhibits the cardiac myofibroblast NLRP3 inflammasome as part of its anti-fibrotic actions via the angiotensin type 2 and ATP (P2X7) receptors. *Int. J. Mol. Sci.* 23: 7074.
8. Kanyomse, Q., et al. 2022. KLF15 suppresses tumor growth and metastasis in triple-negative breast cancer by downregulating CCL2 and CCL7. *Sci. Rep.* 12: 19026.
9. Jin, B., et al. 2023. Costunolide alleviates hyperglycaemia-induced diabetic cardiomyopathy via inhibiting inflammatory responses and oxidative stress. *J. Cell. Mol. Med.* 27: 831-845.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.