

MCP-4 (D-2): sc-271124

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-4 signals through CCR-2 and -3 and is a potent chemoattractant for monocytes, eosinophils and basophils induced in allergic and nonallergic inflammation.

REFERENCES

1. Combadiere, C., et al. 1995. Monocyte chemoattractant protein-3 is a functional ligand for CC chemokine receptors 1 and 2B. *J. Biol. Chem.* 270: 29671-29675.
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.
3. Proost, P., et al. 1996. Human monocyte chemotactic proteins-2 and -3: structural and functional comparison with MCP-1. *J. Leukoc. Biol.* 59: 67-74.
4. Kuna, P., et al. 1996. Chemokines in seasonal allergic rhinitis. *J. Allergy Clin. Immunol.* 97: 104-112.
5. Garcia-Zepeda, E.A., et al. 1996. Human monocyte chemoattractant protein (MCP)-4 is a novel CC chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through the CC chemokine receptors (CCR)-2 and -3. *J. Immunol.* 157: 5613-5626.

CHROMOSOMAL LOCATION

Genetic locus: CCL13 (human) mapping to 17q12.

SOURCE

MCP-4 (D-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 69-102 near the C-terminus of MCP-4 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MCP-4 (D-2) is available conjugated to agarose (sc-271124 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271124 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271124 PE), fluorescein (sc-271124 FITC), Alexa Fluor[®] 488 (sc-271124 AF488), Alexa Fluor[®] 546 (sc-271124 AF546), Alexa Fluor[®] 594 (sc-271124 AF594) or Alexa Fluor[®] 647 (sc-271124 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-271124 AF680) or Alexa Fluor[®] 790 (sc-271124 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271124 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MCP-4 (D-2) is recommended for detection of MCP-4 of human origin by Western Blotting (starting dilution 1:100, 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), 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 MCP-4 siRNA (h): sc-72122, MCP-4 shRNA Plasmid (h): sc-72122-SH and MCP-4 shRNA (h) Lentiviral Particles: sc-72122-V.

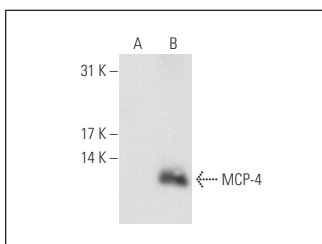
Molecular Weight of MCP-4: 7 kDa.

Positive Controls: MCP-4 (h): 293T Lysate: sc-110922.

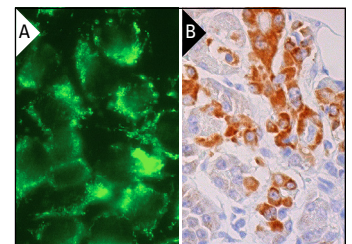
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



MCP-4 (D-2): sc-271124. Western blot analysis of MCP-4 expression in non-transfected: sc-117752 (A) and human MCP-4 transfected: sc-110922 (B) 293T whole cell lysates.



MCP-4 (D-2): sc-271124. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of subset of glandular cells (B).

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.

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