



# MCP-5 (K-12): sc-33228

## BACKGROUND

The monocyte chemotactic proteins, MCP-1, MCP-2, MCP-3, MCP-4 and MCP-5, form a subfamily of the C-C or  $\beta$ -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 $\alpha$  and IFN- $\gamma$ . MCP-1 levels are increased during infection and inflammation, which are both characterized by leukocyte infiltration. MCP-1 is a potent basophil activator but does not affect eosinophils, whereas MCP-2 stimulates both eosinophils and basophils. MCP-3 has been shown to have the broadest range of influence, activating monocytes, dendritic cells, lymphocytes, natural killer cells, eosinophils, basophils and neutrophils. MCP-4 signals through CCR-2 and -3 and is a potent chemoattractant for monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation. MCP-5 is thought to be important in the early stages of lung allergic inflammation.

## REFERENCES

1. Combadiere, C., et al. 1995. MCP-3 is a functional ligand for C-C 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 MCP-2 and -3: structural and functional comparison with MCP-1. *J. Leukocyte Biol.* 59: 67-74.
4. Dubois, P.M., et al. 1996. Early signal transduction by the receptor to the chemokine monocyte chemotactic protein-1 in a murine T cell hybrid. *J. Immunol.* 156: 1356-1361.
5. Beall, C.J., et al. 1996. Site-directed mutagenesis of monocyte chemoattractant protein-1 identifies two regions of the polypeptide essential for biological activity. *Biochem. J.* 313: 633-640.
6. Kuna, P., et al. 1996. Chemokines in seasonal allergic rhinitis. *J. Allergy Clin. Immunol.* 97: 104-112.
7. Garcia-Zepeda, E.A., et al. 1996. Human monocyte chemoattractant protein (MCP)-4 is a novel C-C chemokine with activities on monocytes, eosinophils, and basophils induced in allergic and nonallergic inflammation that signals through the C-C chemokine receptors (CCR)-2 and -3. *J. Immunol.* 157: 5613-5626.
8. Jia, G.Q., et al. 1996. Distinct expression and function of the novel mouse chemokine monocyte chemotactic protein-5 in lung allergic inflammation. *J. Exp. Med.* 184: 1939-1951.

## CHROMOSOMAL LOCATION

Genetic locus: Ccl12 (mouse) mapping to 11 C.

## SOURCE

MCP-5 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MCP-5 of mouse origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-33228 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MCP-5 (K-12) is recommended for detection of MCP-5 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MCP-5 siRNA (m): sc-43916.

Molecular Weight of MCP-5: 13 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.