

# MIP-4 (A-7): sc-374438

## BACKGROUND

Chemokines are members of a superfamily of small inducible, secreted, pro-inflammatory cytokines. Members of the chemokine family exhibit 20 to 50% homology in their predicted amino acid sequences and are divided into four subfamilies. In C-C (or  $\beta$ ) subfamily, the first two cysteines are adjacent. C-C chemokines are chemoattractants and activators for monocytes and T cells. C-C subfamily members include macrophage inflammatory protein (MIP)-1 $\alpha$ , MIP-1 $\beta$ , MIP-2, MIP-3 $\alpha$ , MIP-3 $\beta$ , MIP-4, HCC-1, MIP-5 (or HCC-2), RANTES, MCP-1/2/3 (and the murine homologs JE and MARC), I-309, murine C10 and TCA3. MIP-4 is constitutively expressed in several normal tissues and is highly expressed in plasma.

## CHROMOSOMAL LOCATION

Genetic locus: CCL18 (human) mapping to 17q12.

## SOURCE

MIP-4 (A-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 61-89 at the C-terminus of MIP-4 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MIP-4 (A-7) is available conjugated to agarose (sc-374438 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374438 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374438 PE), fluorescein (sc-374438 FITC), Alexa Fluor<sup>®</sup> 488 (sc-374438 AF488), Alexa Fluor<sup>®</sup> 546 (sc-374438 AF546), Alexa Fluor<sup>®</sup> 594 (sc-374438 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-374438 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-374438 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-374438 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374438 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

MIP-4 (A-7) is recommended for detection of MIP-4 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 MIP-4 siRNA (h): sc-60003, MIP-4 shRNA Plasmid (h): sc-60003-SH and MIP-4 shRNA (h) Lentiviral Particles: sc-60003-V.

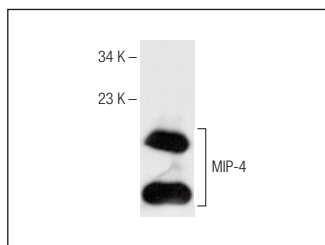
Molecular Weight of MIP-4: 7 kDa.

Positive Controls: human heart extract: sc-363763.

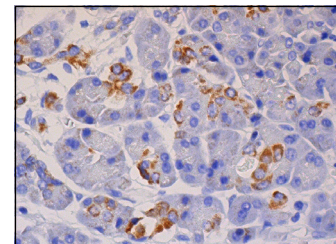
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



MIP-4 (A-7): sc-374438. Western blot analysis of human recombinant MIP-4.



MIP-4 (A-7): sc-374438. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of subset of exocrine glandular cells.

## SELECT PRODUCT CITATIONS

1. Pacini, G., et al. 2018. The fibrogenic chemokine CCL18 is associated with disease severity in Erdheim-Chester disease. *Oncoimmunology* 7: e1440929.
2. Grochans, S., et al. 2022. CCL18 expression is higher in a glioblastoma multiforme tumor than in the peritumoral area and causes the migration of tumor cells sensitized by hypoxia. *Int. J. Mol. Sci.* 23: 8536.

## 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) for detailed protocols and support products.