SANTA CRUZ BIOTECHNOLOGY, INC.

MIG (A-9): sc-514138

BACKGROUND

MIG (monokine induced by interferon-γ), also designated chemokine (C-X-C motif) ligand 9 (CXCL9), CMK, Humig, SCYB9 or crg-10, is a secreted C-X-C chemokine ligand involved in T cell trafficking; it can inhibit angiogenesis and displays thymus-dependent anti-tumor effects. Human carcinoma line HSC-2 expresses MIG mRNA in response to IFN-γ, whereas Ca9-22 and the glioma line A172 do not appear to express MIG mRNA. Elevation of serum MIG and CXCL10 in ocular sarcoidosis correlates with ocular disease activity and ACE (angiotensin converting enzyme) levels. The $G_{\alpha\ i}$ protein-coupled receptor CXCR3 can bind MIG released from intestinal epithelium. MIG can block platelet activating factor (PAF)- or leukotriene B4 (LTB4)-induced responses and can inhibit eotaxin-induced filamentous Actin (F-Actin) formation and chemoattraction. MIG is one of many chemokines that belong to a group of small, mostly basic, structurally related molecules that regulate cell trafficking of various types of leukocytes through interactions with a subset of seven transmembrane, G protein-coupled receptors.

REFERENCES

1. Ruehlmann, J.M., et al. 2001. MIG (CXCL9) chemokine gene therapy combines with antibody-cytokine fusion protein to suppress growth and dissemination of murine colon carcinoma. Cancer Res 61: 8498-8503.
2. Yun, J.J., et al. 2002. The role of MIG/CXCL9 in cardiac allograft vasculopathy. Am. J. Pathol. 161: 1307-1313.
3. Wang, Y.Q., et al. 2003. Expression of the Mig (CXCL9) gene in murine lung carcinoma cells generated angiogenesis-independent antitumor effects. Oncol. Rep. 10: 909-913.

CHROMOSOMAL LOCATION

Genetic locus: CXCL9 (human) mapping to 4q21.1.

SOURCE

MIG (A-9) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 32-53 near the N-terminus of MIG of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MIG (A-9) is available conjugated to agarose (sc-514138 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514138 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514138 PE), fluorescein (sc-514138 FITC), Alexa Fluor® 488 (sc-514138 AF488), Alexa Fluor® 546 (sc-514138 AF546), Alexa Fluor® 594 (sc-514138 AF594) or Alexa Fluor® 647 (sc-514138 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514138 AF680) or Alexa Fluor® 790 (sc-514138 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514138 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MIG (A-9) is recommended for detection of MIG of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

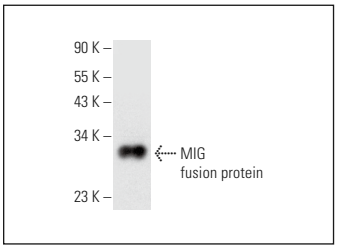
Suitable for use as control antibody for MIG siRNA (h): sc-39361, MIG shRNA Plasmid (h): sc-39361-SH and MIG shRNA (h) Lentiviral Particles: sc-39361-V.

Molecular Weight of MIG: 8-10 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MIG (A-9): sc-514138. Western blot analysis of human recombinant MIG fusion protein.

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 for detailed protocols and support products.