

MIF (FL-115): sc-20121

BACKGROUND

Macrophage migration inhibitory factor, known as MIF or glycosylation-inhibiting factor, is a secreted, homotrimeric, pro-inflammatory cytokine that modulates macrophage and T cell function and is an important regulator of host response to infection. MIF is expressed at sites of inflammation, which suggests that it plays a role in regulating macrophage function in host defense. MIF is produced by the pituitary gland and found in monocytes, macrophages, differentiating immunological cells in the eye lens and brain, and fibroblasts. Elevated levels of MIF protein are detected in the plasma of patients with severe sepsis or septic shock, a condition where MIF influences endotoxic shock by enhancing the production of other inflammatory cytokines including tumor necrosis factor- α (TNF- α), interleukin-1 (IL-1) and interferon- γ (IFN- γ). MIF promotes the systemic inflammatory response by counter-regulating glucocorticoid-mediated inhibition of immune-cell activation and proinflammatory cytokine production. MIF may mediate tissue destruction through the induction of proteinases.

CHROMOSOMAL LOCATION

Genetic locus: MIF (human) mapping to 22q11.23; Mif (mouse) mapping to 10 C1.

SOURCE

MIF (FL-115) is a rabbit polyclonal antibody raised against amino acids 1-115 representing full length MIF of human origin.

PRODUCT

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

MIF (FL-115) is available conjugated to agarose (sc-20121 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP.

APPLICATIONS

MIF (FL-115) is recommended for detection of MIF of mouse, rat and 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 and 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).

MIF (FL-115) is also recommended for detection of MIF in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for MIF siRNA (h): sc-37137, MIF siRNA (m): sc-37138, MIF shRNA Plasmid (h): sc-37137-SH, MIF shRNA Plasmid (m): sc-37138-SH, MIF shRNA (h) Lentiviral Particles: sc-37137-V and MIF shRNA (m) Lentiviral Particles: sc-37138-V.

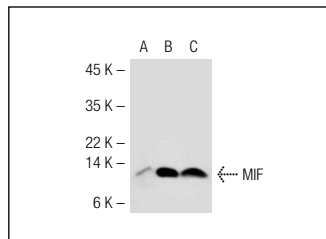
Molecular Weight of MIF: 12.5 kDa.

Positive Controls: MIF (h): 293T Lysate: sc-116440, Y79 cell lysate: sc-2240 or HL-60 whole cell lysate: sc-2209.

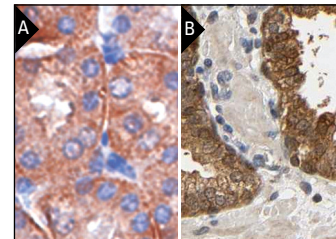
STORAGE

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

DATA



MIF (FL-115): sc-20121. Western blot analysis of MIF expression in non-transfected 293T: sc-117752 (A), human MIF transfected 293T: sc-116440 (B) and Y79 (C) whole cell lysates



MIF (FL-115): sc-20121. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing cytoplasmic and extracellular localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing cytoplasmic and membrane staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Song, R., et al. 2003. Carbon monoxide induces cytoprotection in rat orthotopic lung transplantation via anti-inflammatory and anti-apoptotic effects. *Am. J. Path.* 163: 231-242.
2. He, X.X., et al. 2009. Macrophage migration inhibitory factor promotes colorectal cancer. *Mol. Med.* 15: 1-10.
3. Matluk, N., et al. 2010. A role for NRAGE in NF κ B activation through the non-canonical BMP pathway. *BMC Biol.* 8: 7.
4. Chen, W.T., et al. 2011. Identification of biomarkers to improve diagnostic sensitivity of sporadic colorectal cancer in patients with low preoperative serum carcinoembryonic antigen by clinical proteomic analysis. *Clin. Chim. Acta* 412: 636-641.
5. Cheng, R.J., et al. 2011. Expression of macrophage migration inhibitory factor and CD74 in cervical squamous cell carcinoma. *Int. J. Gynecol. Cancer* 21: 1004-1012.
6. Dumitru, C.A., et al. 2011. Tumor-derived macrophage migration inhibitory factor modulates the biology of head and neck cancer cells via neutrophil activation. *Int. J. Cancer* 29: 859-869.

RESEARCH USE

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

MONOS
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Try **MIF (D-2): sc-271631** or **MIF (11): sc-130329**, our highly recommended monoclonal alternatives to MIF (FL-115). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **MIF (D-2): sc-271631**.