SANTA CRUZ BIOTECHNOLOGY, INC.

MIF (N-20): sc-16965

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (TNFα), 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 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of MIF of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-16965 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MIF (N-20) 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 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).

MIF (N-20) is also recommended for detection of MIF in additional species, including equine, canine, 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.

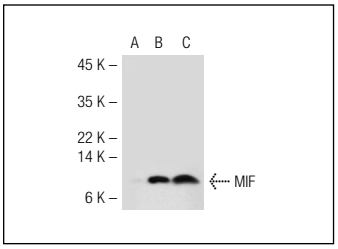
Molecular Weight of MIF: 12.5 kDa.

Positive Controls: Y79 cell lysate: sc-2240, MIF (h): 293T lysate: sc-116440 or Jurkat whole cell lysate: sc-2204.

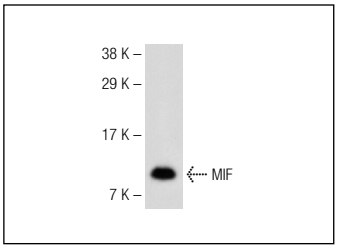
STORAGE

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

DATA



MIF (N-20): sc-16965. 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 (N-20): sc-16965. Western blot analysis of MIF expression in Jurkat whole cell lysate.

SELECT PRODUCT CITATIONS

1. Mahutte, N.G., et al. 2004. Elevations in peritoneal fluid macrophage migration inhibitory factor are independent of the depth of invasion or stage of endometriosis. Fertil. Steril. 82: 97-101.
2. Verschuren, L., et al. 2005. Up-regulation and coexpression of MIF and matrix metalloproteinases in human abdominal aortic aneurysms. Antioxid. Redox Signal. 7: 1195-1202.
3. Verschuren, L., et al. 2009. MIF deficiency reduces chronic inflammation in white adipose tissue and impairs the development of Insulin resistance, glucose intolerance, and associated atherosclerotic disease. Circ. Res. 105: 99-107.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **MIF (D-2): sc-271631** or **MIF (11): sc-130329**, our highly recommended monoclonal alternatives to MIF (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **MIF (D-2): sc-271631**.