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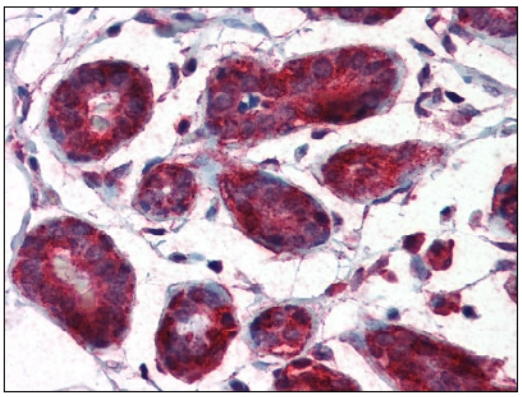
SM6013 Monoclonal Antibody to Human Macrophage Migration Inhibitory Factor (MIF)

Alternate names:	GLIF, Glycosylation-inhibiting factor, MMIF, Macrophage migration inhibitory factor, Phenylpyruvate tautomerase
Quantity:	0.1 ml
Concentration:	1.0 mg/ml
Background:	The cytokine Macrophage migration inhibitory factor (MIF) has been identified to be secreted by the pituitary gland and the monocyte/macrophage and to play an important role in endotoxic shock. MIF has the unique property of being released from macrophages and T-cells in response to physiological concentrations of glucocorticoids. The secretion of MIF is tightly regulated and decreases at high, anti-inflammatory steroid concentration.
Uniprot ID:	P14174
NCBI:	NP_002406.1
GeneID:	4282
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10P (for use in human samples), AM03095PU-N
Clone:	4E4
Immunogen:	Recombinant Human MIF (1-114 aa) purified from *E. coli*.
Format:	**State:** Liquid purified Ig fraction **Purification:** Affinity Chromatography on Protein G **Buffer System:** PBS, pH 7.4 containing 0.02% Sodium Azide and 10% Glycerol
Applications:	**ELISA.** **Western blot:** 1/500-1/2,000. Recommended starting dilution is 1/1,000. **Flow Cytometry.** **Immunofluorescence/Immnunocytochemistry.** **Immunohistochemistry on Paraffin Sections:** 5 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	The antibody recognizes Human MIF. Other species not tested.
Storage:	Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
General Readings:	1. Weiser WY, Temple PA, Witek-Giannotti JS, Remold HG, Clark SC, David JR. Molecular cloning of a cDNA encoding a human macrophage migration inhibitory factor. Proc Natl Acad Sci U S A. 1989 Oct;86(19):7522-6. PubMed PMID: 2552447. 2. Bernhagen J, Mitchell RA, Calandra T, Voelter W, Cerami A, Bucala R. Purification,

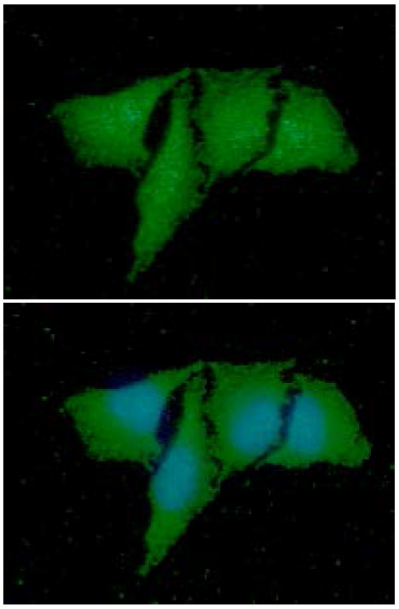
bioactivity, and secondary structure analysis of mouse and human macrophage migration inhibitory factor (MIF). Biochemistry. 1994 Nov 29;33(47):14144-55. PubMed PMID: 7947826.
3. Bucala R. MIF rediscovered: cytokine, pituitary hormone, and glucocorticoid-induced regulator of the immune response. FASEB J. 1996 Dec;10(14):1607-13. PubMed PMID: 9002552.

Pictures:

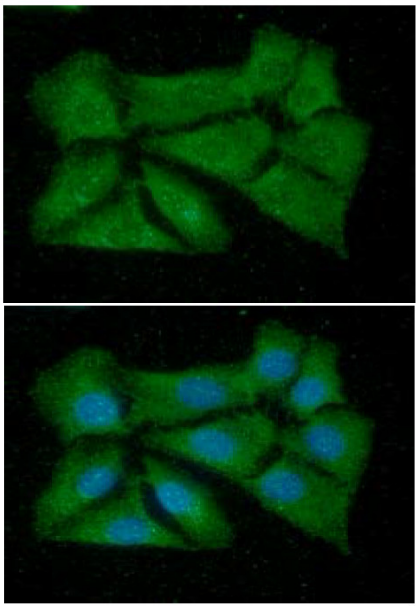
SM6013 MIF antibody staining of Formalin-Fixed, Paraffin-Embedded Human Breast.



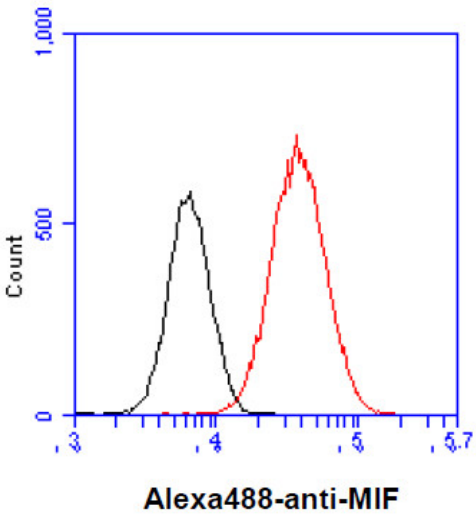
ICC/IF analysis of MIF in HeLa cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human MIF antibody (1/100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



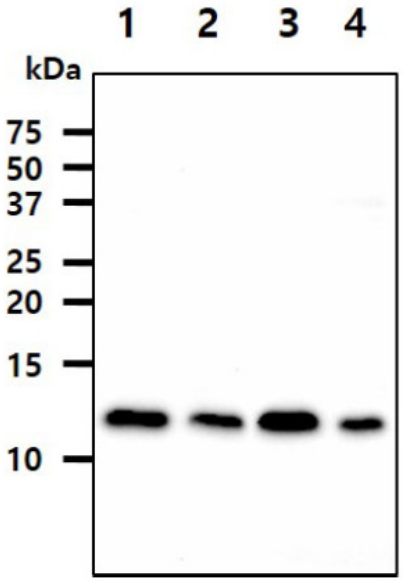
ICC/IF analysis of MIF in Balb/3T3 cells line, stained with DAPI (Blue) for nucleus staining and monoclonal anti-human MIF antibody (1/100) with goat anti-mouse IgG-Alexa fluor 488 conjugate (Green).



Flow cytometry analysis of MIF in HeLa cell line, staining at 2-5ug for 1x10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).



Western blot analysis: The cell lysates (40 µg) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human MIF antibody (1/1000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.
Lane 1: Jurkat cell lysate.
Lane 2: THP-1 cell lysate.
Lane 3: HeLa cell lysate.
Lane 4: U937 cell lysate.



Western blot analysis: The extract of HL-60 was resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-Human MIF antibody (1/1,000). Protein wasvisualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.