

Human MIF ELISA Kit ab100594

2 References 6 Images

Overview

Product name	Human MIF ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 6 pg/ml
Range	8.23 pg/ml - 6000 pg/ml
Recovery	94 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	94.68	83% - 103%
Serum	93.48	82% - 102%
Plasma	95.41	84% - 103%

Assay duration Multiple steps standard assay

Species reactivity Reacts with: Human

Product overview Abcam’s MIF Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human MIF in serum, plasma (collect plasma using heparin as an anticoagulant. EDTA and Citrate are not recommended), and cell culture supernatants.

This assay employs an antibody specific for Human MIF coated on a 96-well plate. Standards and samples are pipetted into the wells and MIF present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human MIF antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of MIF bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm

Notes Optimization may be required with urine samples.

Platform Microplate

## Properties

### Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
300X HRP-Streptavidin Concentrate	1 x 200µl
5X Assay Diluent B	1 x 15ml
Assay Diluent A	1 x 30ml
Biotinylated anti-Human MIF	2 vials
MIF Microplate (12 x 8 wells)	1 unit
Recombinant Human MIF Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

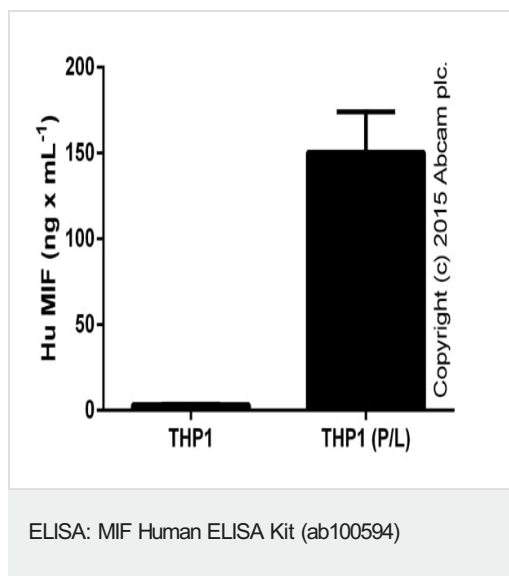
### Relevance

MIF is a proinflammatory cytokine involved in many inflammatory reactions and disorders. MIF (macrophage migration inhibitory factor) was one of the first cytokines to be discovered and was initially described as a T cell-derived factor that inhibits the random migration of macrophages (Weiser 1989). Recently, MIF was rediscovered as a pituitary hormone that act as the counterregulatory hormone for glucocorticoid action within the immune system (Bernhagen 1993, Mitchell 1995). MIF was released from macrophages and T cells in response to physiological concentrations of glucocorticoids. The secreted MIF counter-regulates the immunosuppressive effects of steroids on immune cell activation and cytokine production (Bucala 1998). MIF plays a critical role in the host control of inflammation and immunity. MIF is involved in both autoimmune disorders and tumorigenesis.

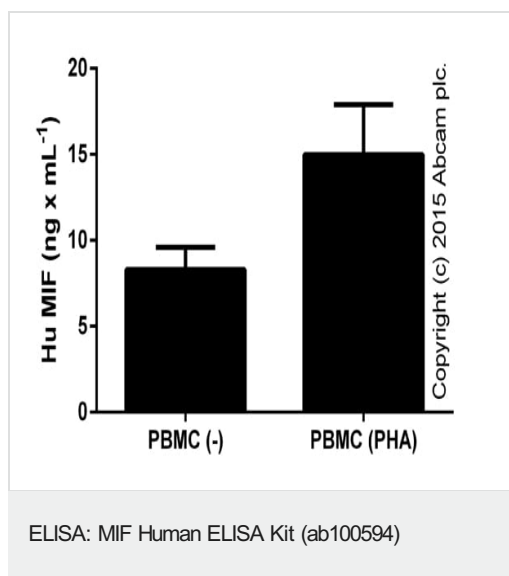
### Cellular localization

Secreted. Cytoplasm. Note: Does not have a cleavable signal sequence and is secreted via a specialized, non-classical pathway. Secreted by macrophages upon stimulation by bacterial lipopolysaccharide (LPS), or by M.tuberculosis antigens.

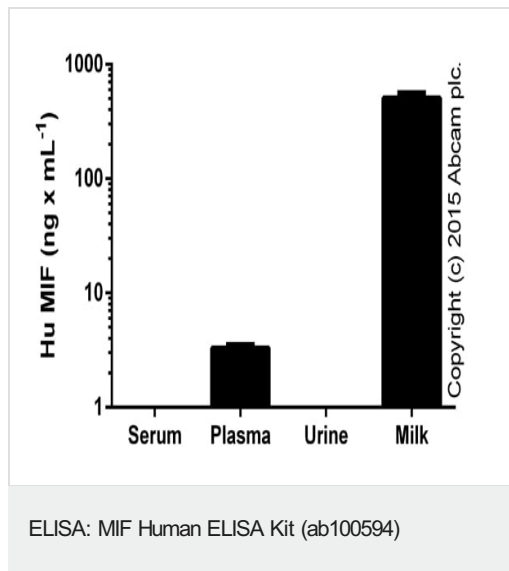
## Images



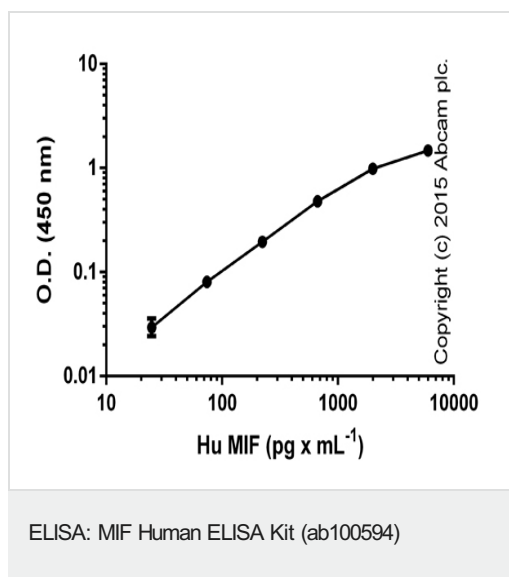
MIF in THP1 supernatants from control cells or cells stimulated (P/L) for 24 hours with 50 ng x mL<sup>-1</sup> PMA ([ab120297](#)) and 1 ug x mL<sup>-1</sup> LPS for the last 6 hours. Samples tested in the range of 1/3-1/30 (duplicates, +/- SD).



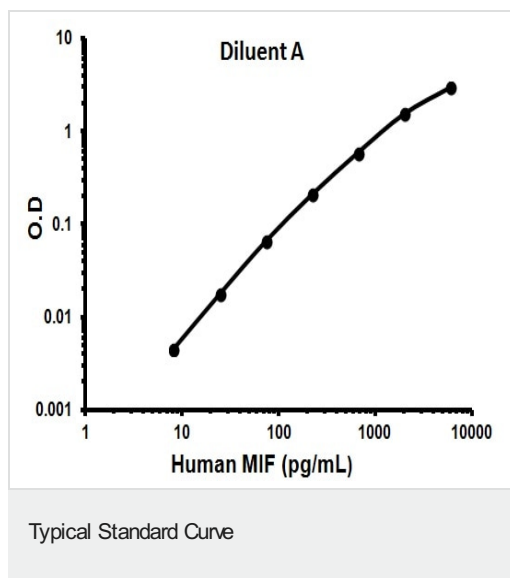
MIF measured in cell culture supernatants from control or treated (PHA: 2 days in 2% PHA-M; LifeTechnologies) PBMCs. Samples tested in the range of 1/3-1/30 (duplicates, +/- SD).



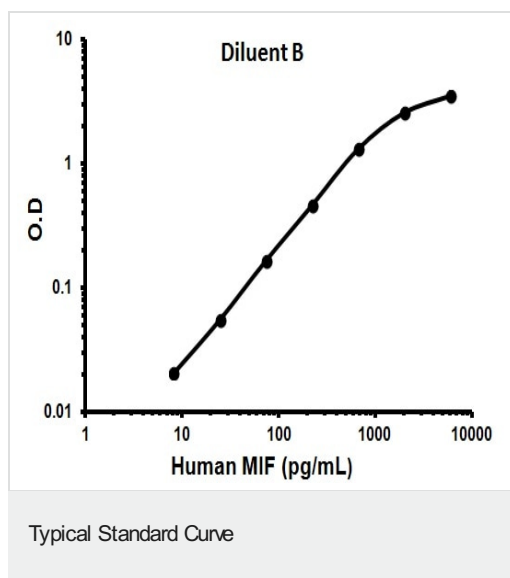
MIF in human biological fluids (duplicates  $\pm$  SD). Data shown from undiluted serum, plasma and urine, and milk diluted 1/100-1/500. Mouse serum gave 0.12 ng/mL (duplicates) and no signal was detected in mouse plasma.



Standard curve in assay buffer B with background signal subtracted (duplicates;  $\pm$  SD).



Representative Standard Curve using ab100594.



Representative Standard Curve using ab100594.

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