# Active Macrophage Migration Inhibitory Factor (MIF) Instruction Manual

## SBPA165Hu02

**Homo sapiens (Human)**

| | |
|---|---|
| **Buffer Formulation** | 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300. |
| **Traits** | Freeze-dried powder |
| **Purity** | > 95% |
| **Isoelectric Point** | 6.6 |
| **Applications** | Cell culture; Activity Assays. |

**ACTIVITY TEST**

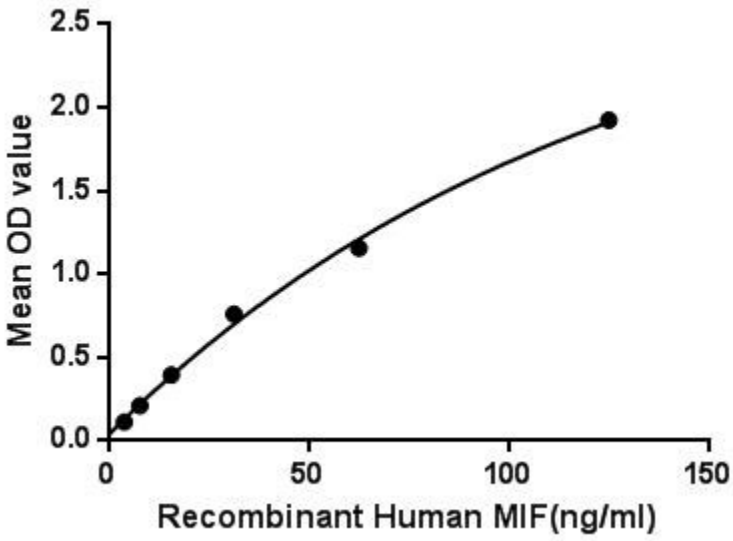


Figure. The binding activity of MIF with MHCDG.
Macrophage migration inhibitory factor (MIF), also known as glycosylation-inhibiting factor (GIF), L-dopachrome isomerase, or phenylpyruvate tautomerase is a protein classified as an inflammatory cytokine. MIF is an important regulator of innate immunity. It involved in cell-mediated immunity, immunoregulation, and inflammation. MIF plays a role in the regulation of macrophage function in host defense through the suppression of anti-inflammatory effects of glucocorticoids. This lymphokine and the JAB1 protein form a complex in the cytosol near the peripheral plasma membrane, which may indicate a role

in integrin signaling pathways. Besides, Major Histocompatibility Complex Class II Invariant Chain (MHCDG) has been identified as an interactor of MIF, thus a binding ELISA assay was conducted to detect the interaction of recombinant human MIF and recombinant human MHCDG. Briefly, MIF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to MHCDG-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-MIF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of MIF and MHCDG was shown in Figure 1, and this effect was in a dose dependent manner.

**USAGE**

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

**STORAGE**

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

**STABILITY**

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

**Image**

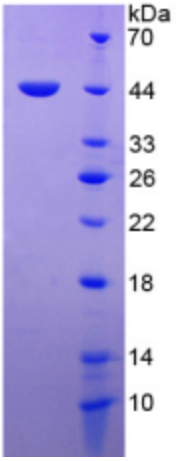

Figure. SDS-PAGE

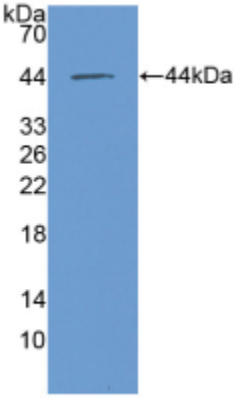

Figure. Western Blot

**[IMPORTANT NOTE]**

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.