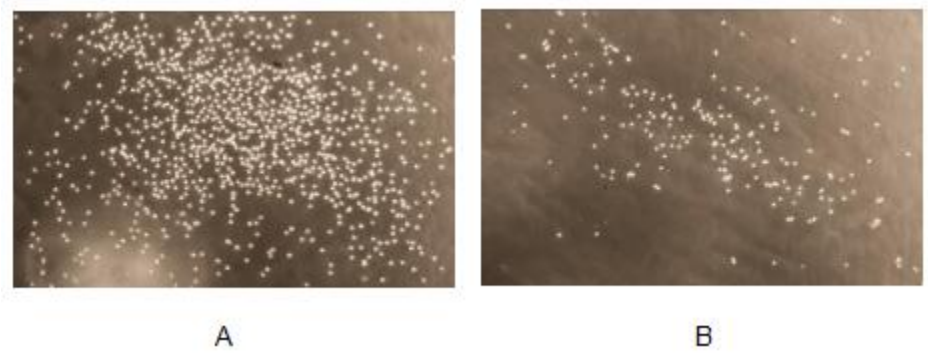
Active Macrophage Inflammatory Protein 3 Beta (MIP3b) Instruction Manual

SBPA065Hu01

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	> 97%
Isoelectric Point	9.6
Applications	Cell culture; Activity Assays.

ACTIVITY TEST



Macrophage Inflammatory Protein 3 Beta (MIP3b) is a small cytokine belonging to the CC chemokine family that is also known as EBI1 ligand chemokine (ELC) and Chemokine C-C motif ligand 19 (CCL19). This chemokine elicits its effects on its target cells by binding to the chemokine receptor chemokine receptor CCR7. It attracts certain cells of the immune system, including dendritic cells and antigen-engaged B cells, CCR7 central-memory T-Cells. Thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of recombinant human MIP3b on the Jurkat cell line. Briefly, Jurkat cells were seeded into the upper chambers (150μL cell suspension,106 cells/mL in RPMI 1640 with FBS free) and MIP3b (0.01ng/mL, 0.1ng/mL, 1ng/mL, 10ng/mL, 100ng/mL and 1000ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8μm pore size) used to separate the two compartments. After incubation at 37℃ with 5% CO2 for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×100) and the number of migrated cells were counted at high

magnification (×400) randomly (five fields for each filter). Result shows MIP3b is able to induce migration of Jurkat cells. The migrated Jurkat cells in low chamber at low magnification (×100) were shown in Figure 1. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (×400). Statistical results were shown in Figure 2. The optimum chemotaxis of recombinant human MIP3b occurs at 0.1-1ng/mL.
(A) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 with 0.1ng/mL MIP3b was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 3h;
(B) Jurkat cells were seeded into the upper chambers and serum free RPMI 1640 without MIP3b was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 3h.
Figure. The chemotactic effect of recombinant human MIP3b on Jurkat cells.

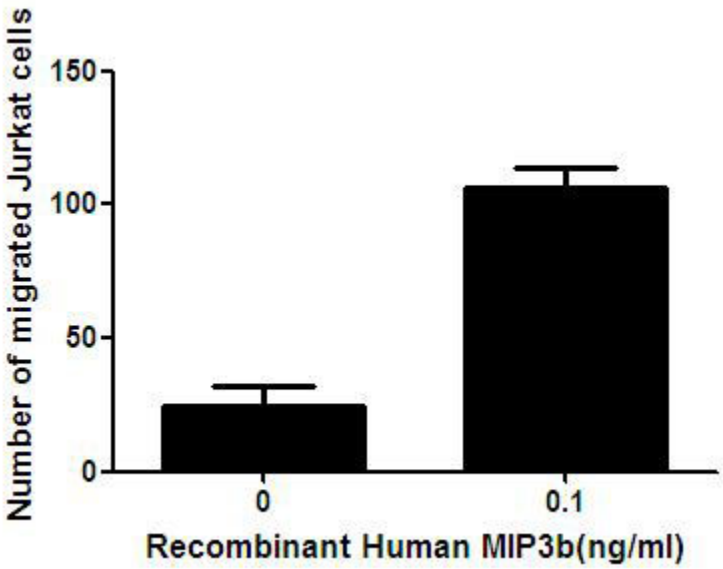


Figure. The chemotactic effect of recombinant human MIP3b on Jurkat cells.

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

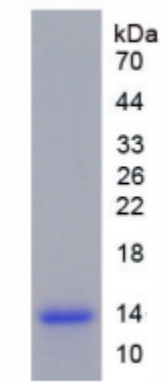
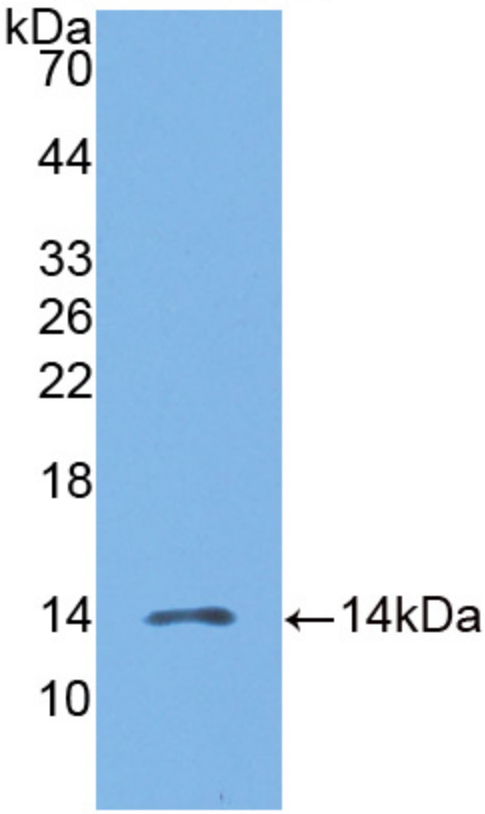


Figure. SDS-PAGE



Sample: Recombinant MIP3b, Human;
Antibody: Rabbit Anti-Human MIP3b Ab (PAA096Hu01)
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.