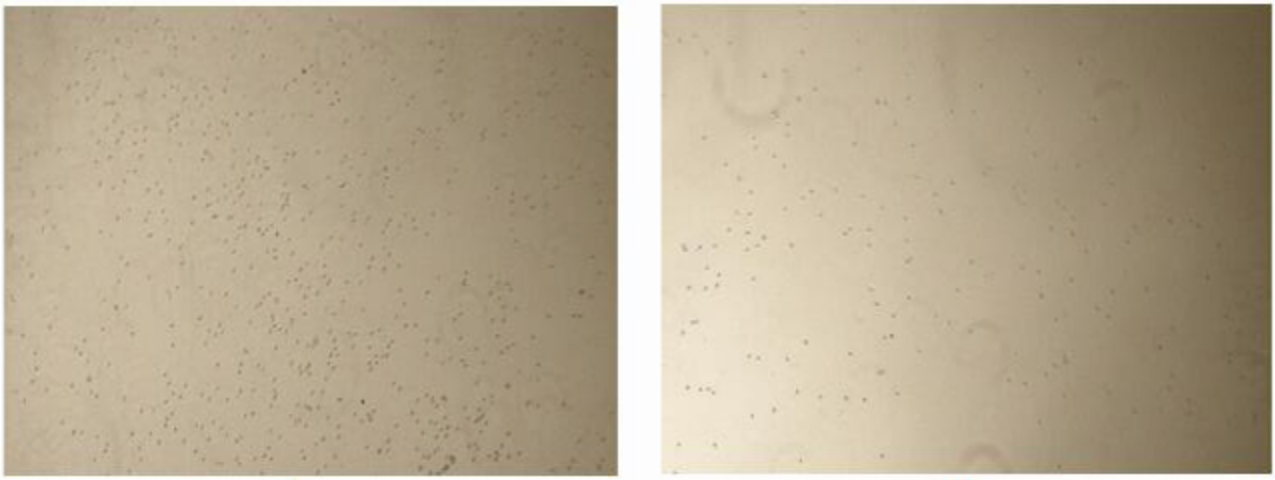
Active Platelet Derived Growth Factor Subunit A (PDGFA) Instruction Manual

SBPA139Mu01

Mus musculus (Mouse)

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	8.9
Applications	Cell culture; Activity Assays.

ACTIVITY TEST



A B

Figure 1.The chemotactic effect of PDGFA on THP1 cells.

(A) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 with 1.5ng/mL PDGFA was added in lower chamber, then cells in lower chamber were observed at low magnification (×40) after incubation for 3h;

(B) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 without PDGFA was added in lower chamber, then cells in lower chamber were observed at low magnification (×40) after incubation for 3h.

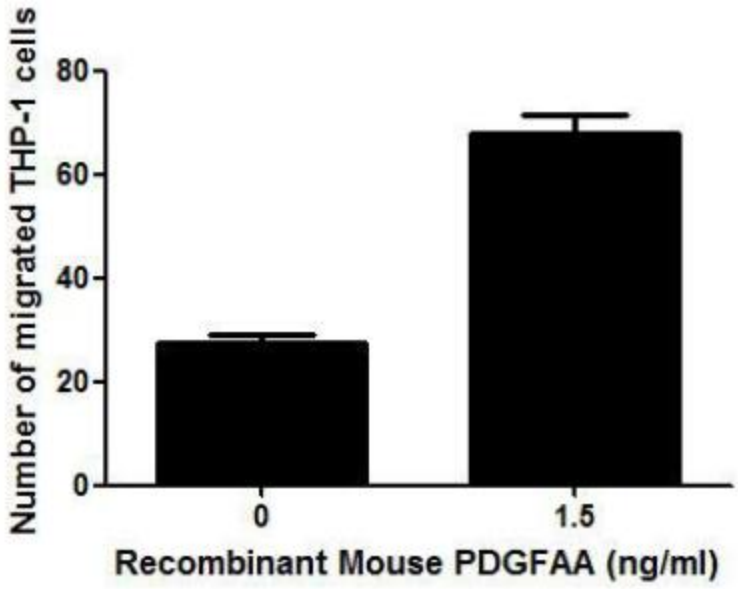


Figure 2.The chemotactic effect of PDGFA on THP-1 cells

PDGFA (Platelet-derived growth factor subunit A) is a Growth factor that plays an essential role in the regulation of embryonic development, cell proliferation, cell migration, survival and chemotaxis. PDGFA has been described as a chemoattractant for monocytes and proven to be able to induce chemotactic migration of THP-1 cells. Therefore, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of PDGFA on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100uL cell suspension,106cells/mL in RPMI 1640 with 0.5% FBS) and PDGFA (1.5ng/mL, 7.5ng/mL and 15ng/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 37oC with 5%CO2 for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×40) and the number of migrated cells were counted at high magnification (×400) randomly (five fields for each filter). Result shows PDGFA is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification (×40) 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 PDGFA occurs at 1.5ng/mL.

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

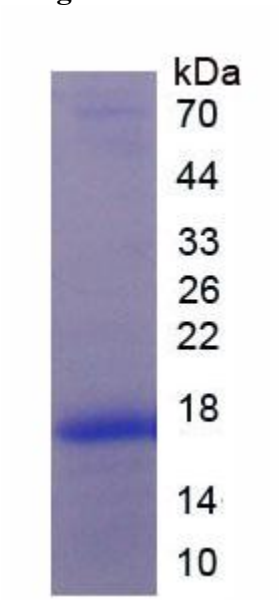


Figure. SDS-PAGE

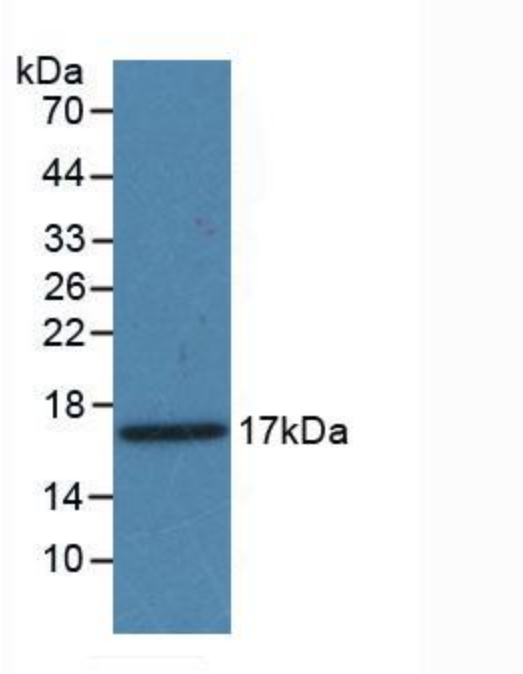


Figure. Western Blot; Sample: Recombinant PDGFA, Mouse.

[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.