# Active Platelet Derived Growth Factor Subunit A (PDGFA)

*Catalog#:PEM12387*

## 概述（Summary）

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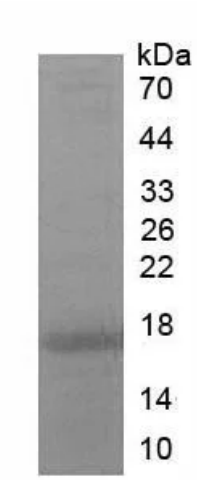
| **别称（Alternative Names）** | PDGF-A; PDGF1; Platelet Derived Growth Factor Alpha Polypeptide |
| **纯度（Purity）** | Greater than 97% as determined by reducing SDS-PAGE. |
| **内毒素（Endotoxin level）** | Please contact with the lab for this information |
| **蛋白构建（Construction）** | 【Glu90-Glu190】 |
| **Accession #** | P20033 |
| **表达宿主（Host）** | E.coli |
| **种属（Species）** | Mus musculus (Mouse) |
| **预测分子量（Predicted MW）** | 15.2 kDa |
| **制剂（Form）** | Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300. |
| **运输方式（Shipping）** | The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below. |
| **稳定性&储存（Stability &Storage）** | 12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles. |
| **复溶（Reconstitution）** | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex. |
| **背景介绍（References）** | Growth factor that plays an essential role in the regulation of embryonic development, cell proliferation, cell migration, survival and chemotaxis. Potent mitogen for cells of mesenchymal origin. Required for normal lung alveolar septum formation during embryogenesis, normal development of the gastrointestinal tract, normal development of Leydig cells and spermatogenesis. Required for normal oligodendrocyte development and normal myelination in the spinal cord and cerebellum. Plays an important role in wound healing. Signaling is modulated by the formation of heterodimers with PDGFB. |

## 电泳图（SDS-PAGE image）




Greater than 97% as determined by reducing SDS-PAGE.

## 活性图（Bioactivity image）

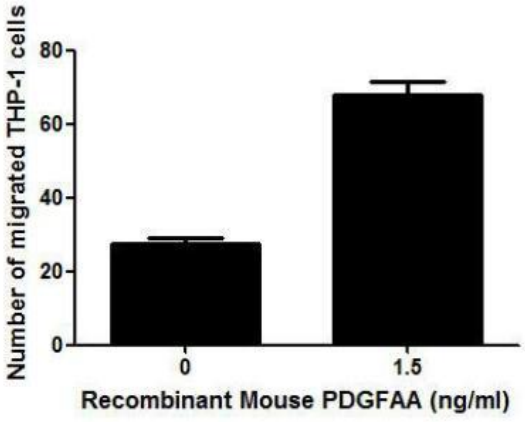
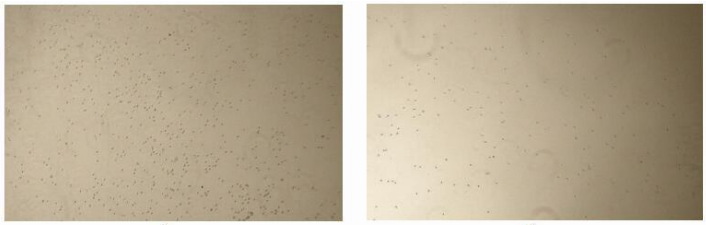



**Figure 2.The chemotactic effect of PDGFA on THP-1 cells**

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.



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.

## 注意事项（Note）

For Research Use Only , Not for Diagnostic Use.