Active Fibroblast Growth Factor 1, Acidic (FGF1)

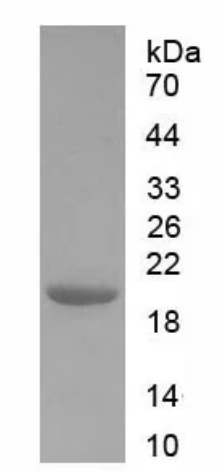
Catalog#:PEH12032

概述（Summary）

别称（Alternative Names）	ECGF; AFGF; ECGFA; ECGFB; FGF-Alpha; FGFA; HBGF1; ECGFB; HBGF1; Acidic Fibroblast Growth Factor; heparin-binding growth factor 1; Endothelial Cell Growth Factor, Beta
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Phe16-Asp155】
Accession #	P05230
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	19.5 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 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 ddH_2O to a concentration of 0.1-0.5 mg/mL. Do not vortex.
背景介绍（References）	Plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Functions as potent mitogen in vitro. Acts as a ligand for FGFR1 and integrins. Binds to FGFR1 in the presence of heparin leading to FGFR1 dimerization and activation via sequential autophosphorylation on tyrosine residues which act as docking sites for interacting proteins, leading to the activation of several signaling cascades. Binds to integrin ITGAV:ITGB3. Its binding to integrin, subsequent ternary complex formation with integrin and FGFR1, and the recruitment of PTPN11 to the

complex are essential for FGF1 signaling. Induces the phosphorylation and activation of FGFR1, FRS2, MAPK3/ERK1, MAPK1/ERK2 and AKT1. Can induce angiogenesis.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

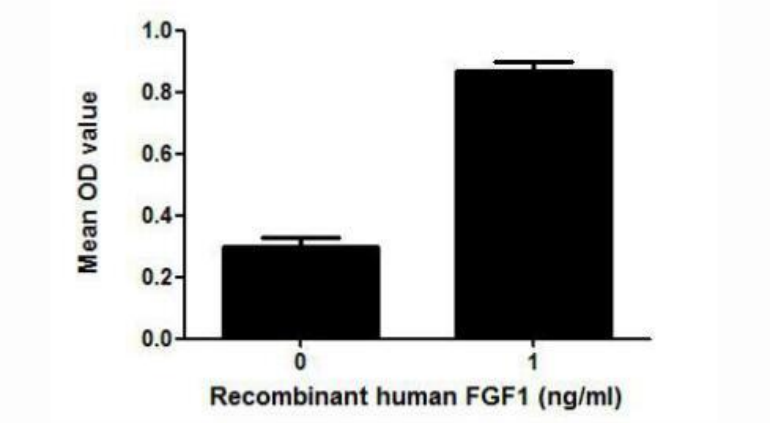


Figure 2. Cell proliferation of 3T3 cells after stimulated with FGF1.

FGF1 (Fibroblast growth factor 1) is a member of FGF family, which plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. FGF1 is thought to stimulate the proliferation of 3T3 fibroblasts, besides, human FGF1 and mouse FGF1 shares similarities in amino acid sequence with the identity of 96%. Thus, a cell proliferation assay was conducted to detect the bioactivity of recombinant human FGF1 using 3T3 fibroblasts. Briefly, 3T3 cells were seeded into triplicate wells of 96-well plates at a density of 2,000 cells/well and allowed to attach overnight, then the medium was replaced with serum-free standard DMEM prior to the addition of various concentrations of FGF1. After incubated for 48h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10μL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of 3T3 cells after incubation with FGF1 for 48h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant FGF1 for 48h. The result was shown in Figure 2. It was obvious that FGF1 significantly increased cell viability of 3T3

cells.

注意事项（Note）

For Research Use Only , Not for Diagnostic Use.