

Datasheet for ABIN6239784

FGF1 Protein (AA 1-155) (His tag,GST tag)**3** Images[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	FGF1
Protein Characteristics:	AA 1-155
Origin:	Human
Source:	Escherichia coli (E. coli)
Biological Activity:	Active
Purification tag / Conjugate:	This FGF1 protein is labelled with His tag,GST tag.
Application:	Activity Assay (AcA), Cell Culture (CC)

Product Details

Characteristics:	Tag location: N-terminal His and GST Tag
Purity:	> 97 %

Biological Activity Comment: 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

Product Details

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.

Target Details

Target:	FGF1
Alternative Name:	Fibroblast Growth Factor 1, Acidic (FGF1) (FGF1 Products)
Background:	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
Molecular Weight:	55kDa
UniProt:	P05230
Pathways:	RTK Signaling , Fc-epsilon Receptor Signaling Pathway , EGFR Signaling Pathway , Neurotrophin Signaling Pathway

Application Details

Application Notes:	Isoelectric Point: 6.5
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	20 mM Tris, 150 mM NaCl, pH 8.0, containing 1 mM EDTA, 1 mM DTT, 0.01 % SKL, 5 % Trehalose and Proclin300.
Preservative:	Dithiothreitol (DTT), Other preservative, ProClin
Precaution of Use:	This product contains ProClin and Dithiothreitol (DTT): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

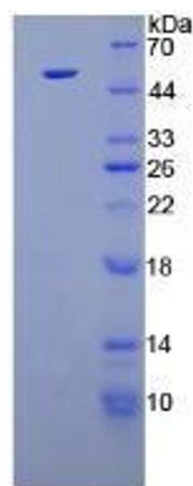


Image 1.

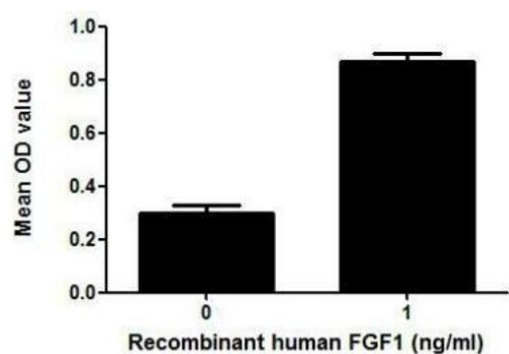


Figure 2. Cell proliferation of 3T3 cells after stimulated with FGF1.

Image 2. 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, 10 μ L 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.

Image 3.



Figure 1. Cell proliferation of 3T3 cells after stimulated with FGF1.

(A) 3T3 cells cultured in DMEM, stimulated with 100ng/ml FGF1 for 48h;
(B) Unstimulated 3T3 cells cultured in DMEM for 48h.