

Datasheet for ABIN6239739
IGF1 Protein (AA 49-118) (His tag)

2 Images

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Overview

Quantity:	50 µg
Target:	IGF1
Protein Characteristics:	AA 49-118
Origin:	Human
Source:	HEK-293 Cells
Biological Activity:	Active
Purification tag / Conjugate:	This IGF1 protein is labelled with His tag.
Application:	Cell Culture (CC), Activity Assay (AcA)

Product Details

Characteristics:	Tag location: N-terminal His Tag
Purity:	> 95 %
Biological Activity Comment:	Insulin-like growth factor I (IGF1), is a hormone similar in molecular structure to insulin but have a much higher growth-promoting activity, it belongs to a family of proteins involved in mediating growth and development. It is reported that IGF1 induces the proliferation, migration, differentiation of a large types of cells including the MCF-7 breast cancer cell line. To test the effect of growth factors on proliferation, MCF-7 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 IGF-1. After incubated for 72h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 µL of CCK-8 solution was added to each well of the plate, then measure the absorbance at 450nm using a microplate reader after

Product Details

incubating the plate for 1-4 hours at 37°C. Cell proliferation of MCF-7 cells after incubation with IGF1 for 72h observed by inverted microscope was shown in Figure 1.

Target Details

Target:	IGF1
Alternative Name:	Insulin Like Growth Factor 1 (IGF1) (IGF1 Products)
Background:	Alternative Names: IGF1, IGF1A, IBP1, MGF, Somatomedin C, Mechano Growth Gactor
Molecular Weight:	14kDa
UniProt:	P05019
Pathways:	RTK Signaling , Intracellular Steroid Hormone Receptor Signaling Pathway , Peptide Hormone Metabolism , Hormone Activity , Regulation of Intracellular Steroid Hormone Receptor Signaling , Regulation of Hormone Metabolic Process , Regulation of Hormone Biosynthetic Process , Stem Cell Maintenance , Glycosaminoglycan Metabolic Process , Regulation of Carbohydrate Metabolic Process , Autophagy , Smooth Muscle Cell Migration , Activated T Cell Proliferation , Positive Regulation of fat Cell Differentiation

Application Details

Application Notes:	Isoelectric Point: 7.8
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.

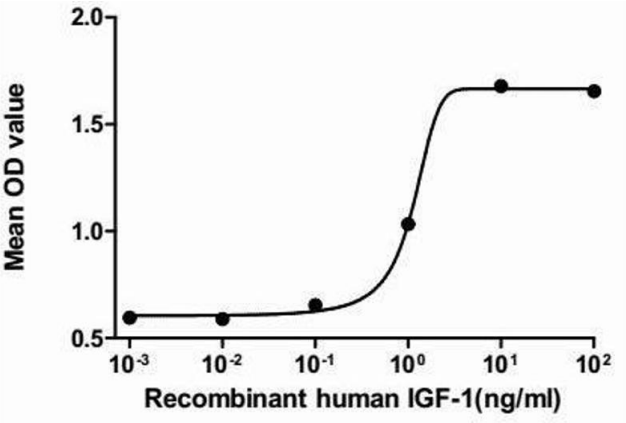


Figure 2. The dose-effect curve of IGF1 on MCF-7 cells.

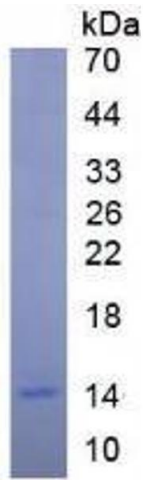


Image 1. The dose-effect curve of IGF1 was shown in Figure2. It was obvious that IGF1 significantly promoted cell proliferation of MCF-7 cells. The ED50 for this effect is typically 8.66~17.19 ng/mL.

Image 2.