

Datasheet for ABIN6239790

Insulin Protein (INS) (AA 25-54, AA 90-110) (His tag)**2** Images[Go to Product page](#)

Overview

Quantity:	50 µg
Target:	Insulin (INS)
Protein Characteristics:	AA 25-54, AA 90-110
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Biological Activity:	Active
Purification tag / Conjugate:	This Insulin protein is labelled with His tag.
Application:	Activity Assay (AcA), Cell Culture (CC)

Product Details

Characteristics:	Tag location: N-terminal His Tag
Purity:	> 97 %
Biological Activity Comment:	INS (Insulin) is a peptide hormone produced by beta cells of the pancreatic islets, which decreases blood glucose concentration and increases cell permeability to monosaccharides, amino acids and fatty acids. It has been reported that insulin triggers phosphorylation of a number of substrates by binding to its receptors, which was important for cell proliferation, cell cycle progression, cell division and differentiation. To detect the effect of Insulin on cell 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 INS. 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.

Target Details

Target:	Insulin (INS)
Abstract:	INS Products
Background:	Alternative Names: Insulin
Molecular Weight:	10kDa
UniProt:	P01315
Pathways:	NF-kappaB Signaling , RTK Signaling , Positive Regulation of Peptide Hormone Secretion , Peptide Hormone Metabolism , Hormone Activity , Carbohydrate Homeostasis , ER-Nucleus Signaling , Regulation of Carbohydrate Metabolic Process , Feeding Behaviour , Autophagy , Negative Regulation of intrinsic apoptotic Signaling , Brown Fat Cell Differentiation , Positive Regulation of fat Cell Differentiation

Application Details

Application Notes:	Isoelectric Point: 7.1
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.

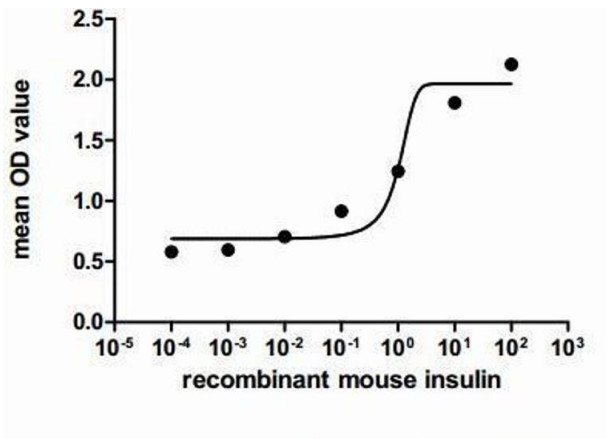


Figure 2. The dose-effect curve of INS on MCF-7 cells.

Image 1. The dose-effect curve of INS was shown in Figure 2. It was obvious that INS significantly promoted cell proliferation of MCF-7 cells. The ED50 for this effect is typically 11.71 to 57.11 ng/mL.

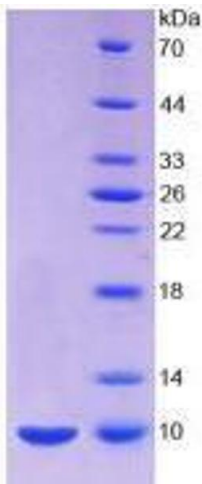


Image 2.