

Human IGF1 protein, His tag (active)

Cat. No. GTX00085-pro

Applications	Functional Assay	Package
Species	Human	10 µg

Applications

Application Note

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 2000 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 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.

Observed MW (kDa) 14 kDa.

Properties

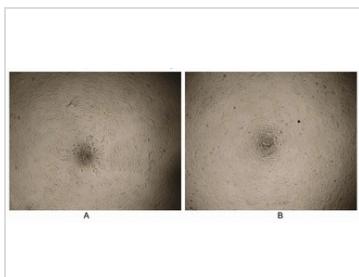
Form	Lyophilized powder
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose.
Preservative	ProClin 300
Storage	For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.
Region/Sequence	N-terminal His-Tag; EFKLAAALEGGRKLEF+Gly49~Ala118 (NP_000609.1)
Expression System	HEK293 cells
Purity	> 95%
Endotoxin	< 1 EU/µg
Conjugation	Unconjugated
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.



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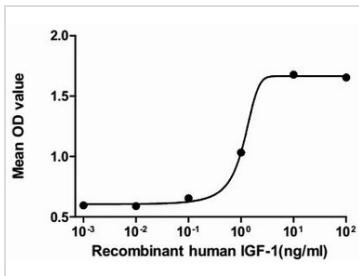
DATA IMAGES

**GTX00085-pro Functional Assay Image**

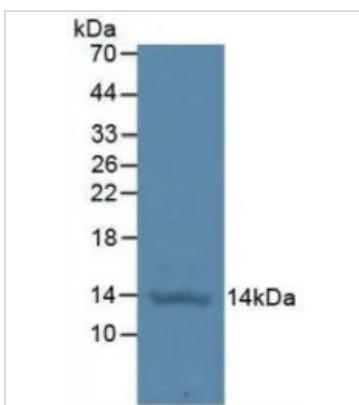
Cell proliferation effect of GTX00085-pro Human IGF1 protein (active).

(A) Unstimulated MCF-7 cells cultured in serum-free DMEM for 72hrs.

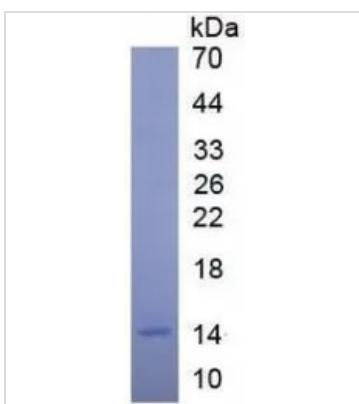
(B) MCF-7 cells cultured in serum-free DMEM, stimulated with 10 ng/ml IGF1 for 72hrs.

**GTX00085-pro Functional Assay Image**

The dose effect curve of GTX00085-pro Human IGF1 protein (active) on MCF-7 cells. After incubation of Human IGF1 protein (active) for 72 hrs, cell proliferation was measured by Cell Counting Kit-8 (CCK-8).

**GTX00085-pro Image**

WB analysis of GTX00085-pro Human IGF1 protein (active).

**GTX00085-pro Image**

SDS-PAGE analysis of GTX00085-pro Human IGF1 protein (active).



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