

# Recombinant Human IGF-I Protein

Catalog No.: RP00996 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	3479	P05019-1

### Tags

C-hFc&His

### Synonyms

IGF1;IGF-I;IGFI;MGF; IGFI; MGF

## Product Information

Source	Purification
HEK293 cells	> 87% by SDS-PAGE.

Calculated MW	Observed MW
34.44 kDa	41 kDa

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

☎ | 400-999-6126

✉ | [cn.market@abclonal.com.cn](mailto:cn.market@abclonal.com.cn)

🌐 | [www.abclonal.com.cn](http://www.abclonal.com.cn)

## Background

### Basic Information

#### Description

Recombinant Human IGF-I Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence ( Gly 49 - Ala 118) of human IGF1 (Accession #NP\_001104755.1) fused with an Fc, 6×His tag at the C-terminus.

#### Bio-Activity

1. Measured by its ability to stimulate p70 S6 Kinase(Thr389) and p85 S6 Kinase(Thr412) autophosphorylation in 293T human embryonic kidney cells. 0.01-1 ng/mL of Recombinant Human IGF1 can effectively enhance p70 S6 Kinase(Thr389) and p85 S6 Kinase(Thr412) autophosphorylation. | 2. Measured by its binding ability in a functional ELISA. Immobilized recombinant human IGF1 at 1 μg/mL (100 μL/well) can bind recombinant human IGF1 with a linear range of 30-250 ng/mL. 3. Measured in a cell proliferation assay using MCF-7 cells. The ED<sub>50</sub> for this effect is typically 7.5-30 ng/mL, corresponding to a specific activity of 3.33×10<sup>4</sup>-1.33×10<sup>5</sup> units/mg.

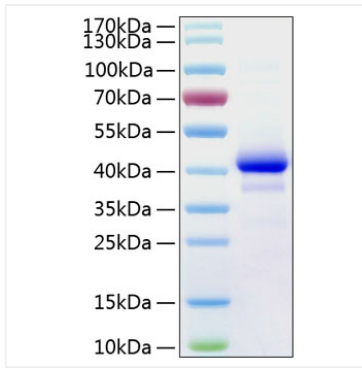
#### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

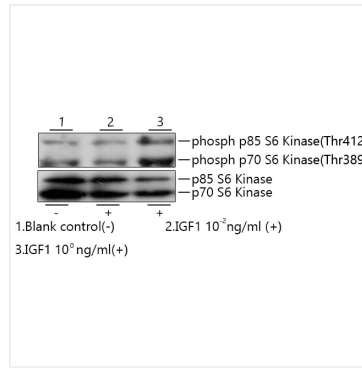
After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

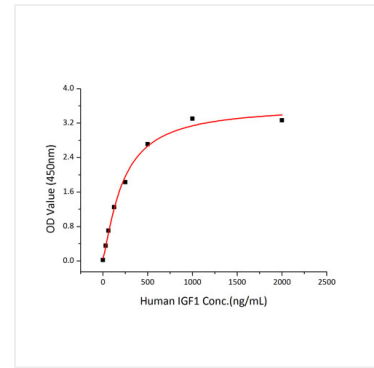
## Validation Data



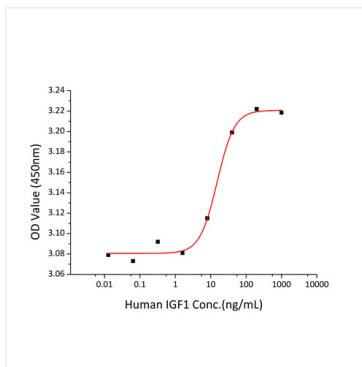
Recombinant Human IGF-I Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 41 kDa.



Recombinant Human IGF1 enhances p70S6 Kinase(Thr389) and p85S6 Kinase(Thr412) autophosphorylation in 293T human embryonic kidney cells. 0.01-1ng/mL of Recombinant Human IGF1 can effectively enhance p70S6 Kinase(Thr389) and p85S6 Kinase(Thr412) autophosphorylation.



Measured by its binding ability in a functional ELISA. Immobilized recombinant human IGFBP6 at 1μg/mL (100 μL/well) can bind recombinant human IGF1 with a linear range of 30-250ng/mL.



Recombinant Human IGF1 promotes the proliferation of MCF-7 cells. The ED<sub>50</sub> for this effect is typically 7.5-30 ng/mL.