

Recombinant Human IGF-I Protein

Catalog No.: RP00996

Sequence Information

Species	Gene ID
Human	3479
Swiss Prot	Tags
P05019-1	C-hFc&His

Synonyms

IGF1, IGF-I, IGF1, MGF, IGFI, MGF

Product Information

Source	Purification
HEK293 cells	≥ 85 % as determined 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.

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.

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 IGFBP6 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 ED₅₀ for this effect is typically 7.5–30 ng/mL, corresponding to a specific activity of 3.33×10⁴–1.33×10⁵ units/mg.

Shipping

Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage

Store at –20°C

Operational Notes

For your safety and health, please wear a lab coat and disposable gloves for handling.

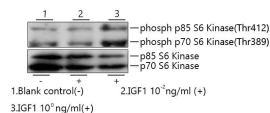
Contact

☎ | 400-999-6126

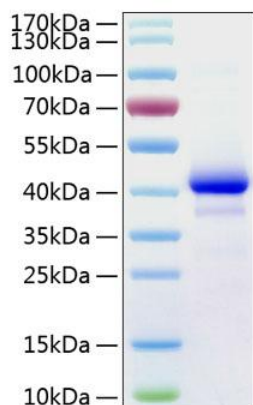
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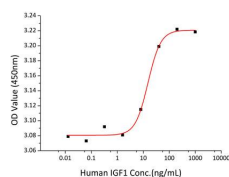
Validation Data



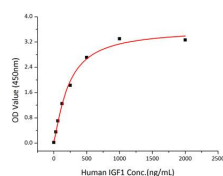
Recombinant Human IGF1 enhances p70S6 Kinase(Thr389) and p85 S6 Kinase (Thr412) autophosphorylation in 293T human embryonic kidney cells. 0.01–1 ng/mL of Recombinant Human IGF1 can effectively enhance p70S6 Kinase(Thr389) and p85 S6 Kinase(Thr412) autophosphorylation.



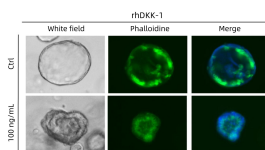
Recombinant Human IGF-I Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human IGF1 promotes the proliferation of MCF-7 cells. The ED₅₀ for this effect is typically 7.5–30 ng/mL.



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



Human kidney organoids were cultured with EGF (Cat. RP03287), FGF2 (Cat. RP01042), FGF7 (Cat. RP01717), FGF9 (Cat. RP01710), FGF10 (Cat. RP01140), IGF- (Cat. RP00996), NOG (Cat. RP01237), RSP01 (Cat. RP00071), WNT-3a (Cat. RP01618SLQ). And further, DKK-1 (RP01343) was used to induce the establishment of cell polarity.