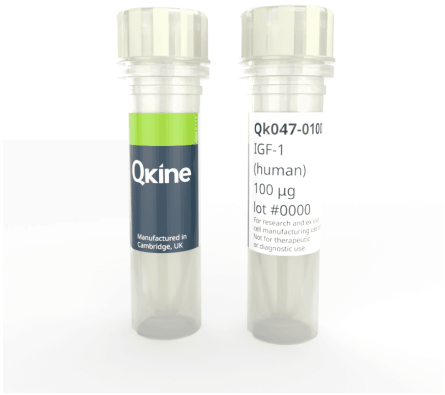
orders@qkine.com
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Recombinant human IGF-1 protein (Qk047)



Type: Stem cells

Available for purchase: Unit Size (µg): 25, 50, 100, 500, 1000

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Product Information

Human insulin-like growth factor 1 (IGF-1) protein is used in the maintenance of human pluripotent stem cells (iPSC) and is necessary for cell growth in the absence of insulin. IGF-1 promotes the proliferation of many cell types, including embryonic stem cells (ESC) and mesenchymal stem cells (MSC).

Qkine IGF-1 is a highly pure and bioactive 8 kDa protein, Qkine growth factors are animal origin-free (AOF) and carrier-protein free (CF) for consistent stem cell culture.

This protein is also available as GMP compliant Cell Therapy Grade, to enquire email support@qkine.com.

Alternative protein names

Insulin-like Growth Factor-I, Somatamedin-C, Mechano Growth Factor (MGF), IGF1, IGF 1, Qk47

Molecular weight

8 kDa

Protein Uniprot number

High purity human IGF-1 protein (Uniprot:P05019)

Species reactivity

- human

- species similarity:
- mouse - 94%
- rat - 96%
- bovine - 100%
- porcine - 100%

Product Information

- >98%, by SDS-PAGE quantitative densitometry
- Expressed in *E. coli*
- Animal origin-free (AOF) and carrier protein-free
- Manufactured in our Cambridge, UK laboratories
- Lyophilized from acetonitrile, TFA

Reconstitution instructions

- Resuspend in sterile-filtered water at >50 µg/ml

Featured applications

- Maintenance of pluripotency in iPSC
- Cell culture media optimization and replacement of insulin in defined media

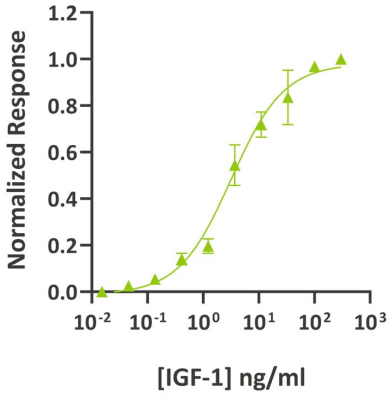
Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein

Scientific Information

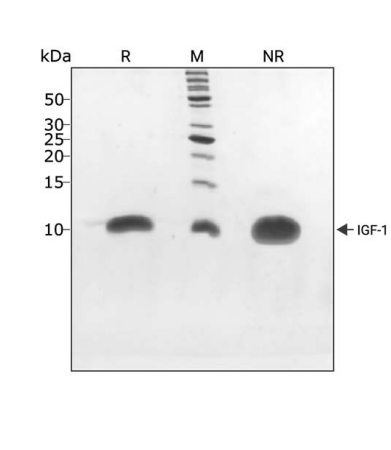
Bioactivity

IGF-1 activity was determined using the Promega serum response element luciferase reporter assay (*) in transfected MCF-7 cells. EC50 = 3.5 ng/ml (0.45 nM). Cells were treated in triplicate with a serial dilution of IGF-1 for 4 hours. Firefly luciferase activity was measured and normalized to the control Renilla luciferase activity. Data from Qk047 lot #104331. *Promega pGL4.33[*luc2P*/SRE/Hygro] #E1340



Purity

IGF-1 protein migrates as a single band at 10 kDa in non-reducing (NR) conditions and upon reduction (R). No contaminating protein bands are visible. Purified recombinant protein (3 µg) was resolved using 18% w/v SDS-PAGE in reduced (+β-mercaptothanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250. Data from Qk047 batch #104331.



Original product page: https://qkine.com/product/recombinant-human-igf1-protein-qk047/

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