

Recombinant bovine/porcine IGF-1 LR3 protein (Qk114-FG)



Type: Food grade proteins

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

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Product Information

Bovine/porcine insulin-like growth factor 1 long arginine 3 (IGF-1 LR3) protein is a synthetic analog of IGF-1. The substitutions include an arginine substitution and an N-terminal protein extension. Consequently, IGF-1 LR3 has improved biological potency and extended half-life and can be used for the consistent, reproducible maintenance of pluripotent stem cells.

Qkine IGF-1 LR3 is a [high quality food grade](#) bioactive 9 kDa protein monomer, [animal origin-free](#) (AOF) and carrier-protein free (CF).

Alternative protein names

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

Molecular weight

9 kDa

Protein Uniprot number

High quality IGF-1 LR3 protein

Species reactivity

- bovine

- porcine

Product Information

- High quality food grade recombinant protein
- >98%, by SDS-PAGE quantitative densitometry
- Animal origin-free (AOF) and carrier protein-free
- Expressed in *E. coli*
- Manufactured in the UK under a food manufacturing HACCP regime
- Lyophilized from acetonitrile, TFA

Reconstitution instructions

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

Featured applications

- Bovine and porcine stem cell expansion and maintenance
- Bovine and porcine primary cell culture
- Cell culture media optimization and replacement of insulin in defined media
- Cellular agriculture and cultivated meat cell culture media optimization

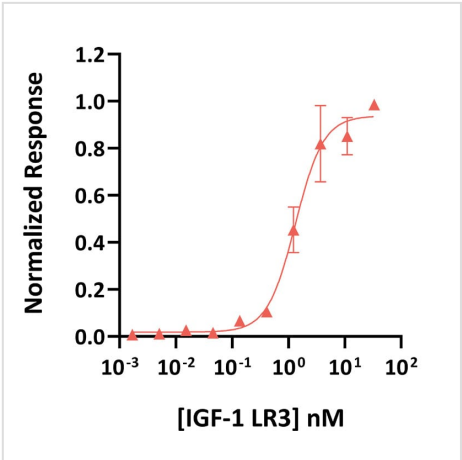
Further quality assays

- Mass spectrometry: single species with expected mass
- Recovery from stock vial: >95%
- Endotoxin: <0.05 EU/µg protein
- Full raw materials traceability, allergen analysis, CoO, CoA, beta-lactam-free and animal origin-free certification available

Scientific Information

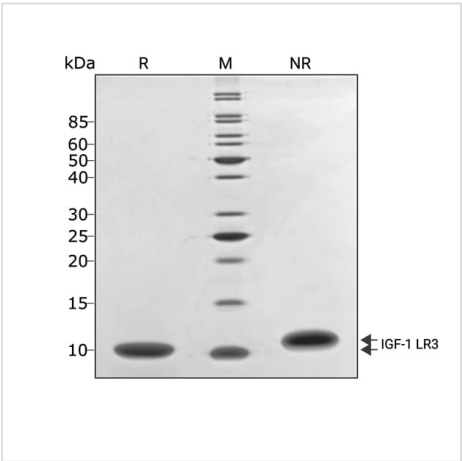
Bioactivity

Bioactivity was determined using the Promega serum response element luciferase reporter assay in transfected MCF-7 cells. Cells are treated in triplicate with a serial dilution of IGF-1 LR3 for 4 hours. Firefly luciferase activity was measured and normalized to the control Renilla luciferase activity. EC50 = 1.3 nM (11.7 ng/ml).



Purity

IGF-1 LR3 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-mercaptoethanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250.



Original product page: <https://qkine.com/product/recombinant-bovine-porcine-igf-1-lr3-protein-qk114-fg/>

PDF generated: 12 September 2026

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