

Recombinant human LIF protein (Qk036)



Type: Stem cells

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

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Product Information

Human LIF (leukemia inhibitory factor) suppresses the differentiation of murine embryonic stem cells (ESCs) and is widely used in ESC and [induced pluripotent stem cell](#) (iPSC) culture.

Qkine human LIF protein is a 17 kDa highly pure, bioactive, [animal origin-free](#) and carrier-protein free for reproducible results in stem cell culture.

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

Alternative protein names

Leukemia inhibitory factor, Differentiation-stimulating factor, D factor, melanoma-derived LPL inhibitor (MLPLI), Qk36

Molecular weight

17 kDa

Protein Uniprot number

High purity human LIF protein (Uniprot: P15018)

Species reactivity

- human
- species similarity:

- mouse - 78%
- rat - 82%
- bovine - 88%
- porcine - 87%

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 10 mM HCl (Reconstitution solution A) at >50 µg/ml

Featured applications

- Propagation of embryonic stem cells in feeder or feeder-free chemically defined culture systems
- Human LIF can be used in the maintenance of murine ESCs

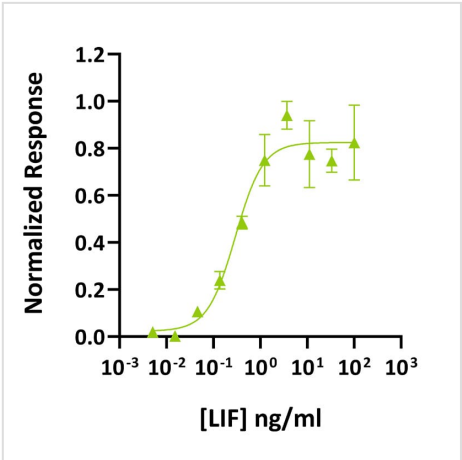
Further quality assays

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

Scientific Information

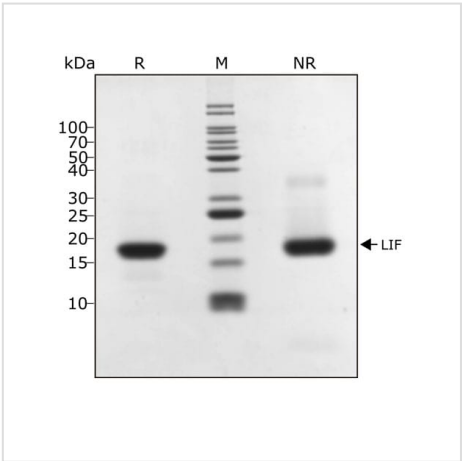
Bioactivity

Human LIF activity was determined using the LIF-responsive firefly luciferase reporter assay. HEK293T cells were treated in triplicate with a serial dilution of LIF overnight. Firefly luciferase activity was measured and normalized to the control Renilla luciferase activity. EC50 = 16.8 pM (0.29 ng/ml). Data from Qk036 lot #104293.



Purity

Human LIF protein (Qk036) migrates as a single band at 20 kDa in non-reducing (NR) and upon reduction (R). Purified recombinant human LIF protein (3 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptoethanol, R) and non-reduced conditions (NR) and stained with Coomassie Brilliant Blue R250. Data from Qk036 lot #104293.



Original product page: <https://qkine.com/product/recombinant-human-lif-protein-qk036/>

PDF generated: 10 May 2026

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