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Recombinant human EPO protein (Qk099)

Type: Stem cells

Available for purchase: unit size (µg): 25, 50, 100, 500, 1000

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Product Information

Erythropoietin (EPO) is an essential cytokine hormone which controls the production of erythrocytes (red blood cells). Recombinant EPO can be used in the differentiation of hematopoietic projector cells into erythrocytes and other major hematopoietic lineages.

Qkine have developed the only commercially available bioactive animal origin-free EPO for reproducible hematopoietic stem cell culture. Qkine EPO is a 18.4 kDa protein, tag-free and carrier-free.

This protein is also available as GMP compliant Cell Therapy Grade, to enquire email ryan.weber@matriqx.com.

Alternative protein names

Erythropoietin, EP, Epoetin, ECYT5, MVCD2, DBAL, erythropoetin, haematopoietin, haemopoietin, hematopoietin, hemopoietin, Qk99

Molecular weight

18.4 kDa (monomer)

Protein Uniprot number

High purity human protein (Uniprot: P01588)

Species reactivity

- human
- species similarity:
- mouse - 80% (has been shown to cross-react)
- rat - 83%
- bovine - 83%
- porcine - 82%

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 and differentiation of hematopoietic stem cells
- Proliferation and differentiation of erythrocytes, leukocytes and platelets
- Maintenance of cardiac progenitor cells

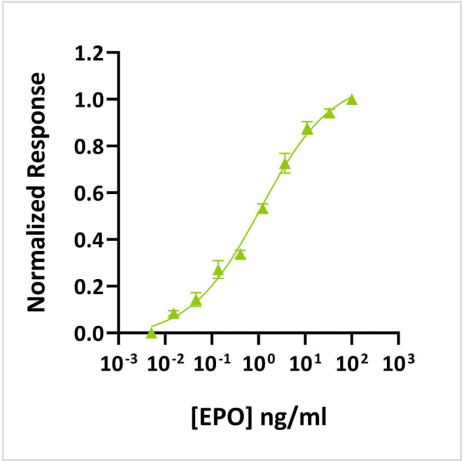
Further quality assays

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

Scientific Information

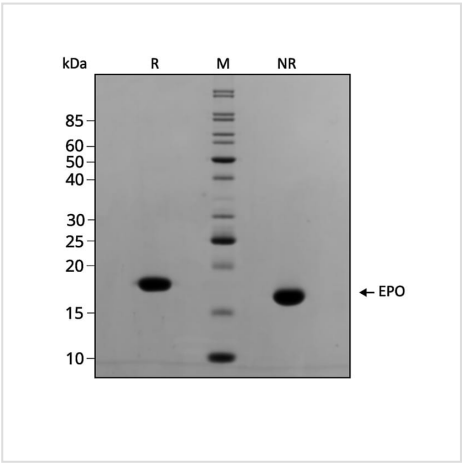
Bioactivity

Recombinant EPO activity was determined using proliferation of TF-1 human myeloid leukemia cells. Cells were treated in triplicate with a serial dilution of EPO for 72 hours. Cell viability was measured using the CellTiter-Glo (Promega) luminescence assay. Data from Qk099 lot #204757. EC50 = 1.14 ng/ml (62 pM).



Purity

Recombinant EPO migrates as a major band at approximately 18 kDa (monomer) in reduced (R) and 16 kDa (monomer) in non-reduced (NR) conditions. No contaminating protein bands are present. The purified recombinant protein (3 µg) was resolved using 15% w/v SDS-PAGE in reduced (+β-mercaptoethanol, R) and non-reduced (NR) conditions and stained with Coomassie Brilliant Blue R250. Data from Qk099 lot #204757.



Original product page: https://ryan.calliope-alpha.ts.net/product/recombinant-human-epo-protein-qk099/

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