

Recombinant human SCF protein (Qk078)



Type: Stem cells

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

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Product Information

Stem cell factor (SCF) is a critical factor in the maintenance and expansion of [hematopoietic stem cells](#) (HSCs) in the bone marrow microenvironment. Key myeloid progenitor differentiation factor for a variety of myeloid cells such as megakaryocytes, basophils, neutrophils, and monocytes, SCF is also a primary growth and activation factor for mast cells and eosinophils.

Recombinant SCF is a highly pure 18.5 kDa monomer, [animal origin-free](#) (AOF) and carrier-protein-free (CF). Qkine has optimized the SCF manufacture process to produce a highly bioactive protein with excellent lot-to-lot consistency for enhanced experimental reproducibility.

Qkine SCF is also available as [cell therapy grade](#) with extended quality testing and documentation - [Qk078-CTG](#)

Alternative protein names

Mast cell growth factor (MGF), Stem cell growth factor (SCF), C-kit ligand, Qk78

Molecular weight

18.5 kDa (monomer)

Protein Uniprot number

High purity human SCF protein (Uniprot number: P21583)

Species reactivity

- human
- species similarity:
- mouse - 79%

- rat -79%
- bovine - 82%
- porcine - 83%

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

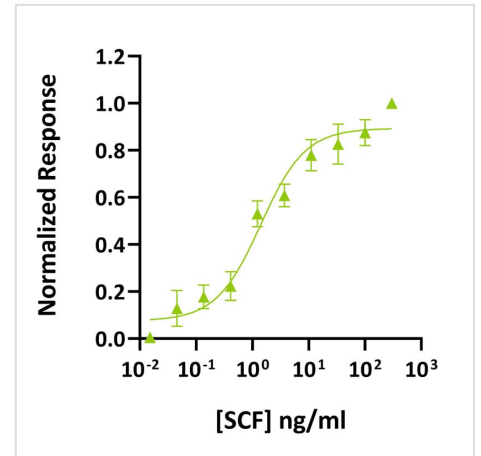
Further quality assays

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

Scientific Information

Bioactivity

Recombinant SCF activity was determined using proliferation of TF-1 human myeloid leukemia cells. Cells were treated in triplicate with a serial dilution of SCF for 48 hours. Cell viability was measured using the CellTiter-Glo (Promega) luminescence assay. Data from Qk078 lot #204621. EC50 = 1.41 ng/ml (76 pM).



Purity

Recombinant SCF migrates at approximately 18 kDa (monomer) in reduced (R) and at approximately 15 kD 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 Qk078 lot #204621.



Original product page: <https://ryan.calliope-alpha.ts.net/product/recombinant-human-scf-protein-qk078/>

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