

## Recombinant mouse SCF protein (Qk077)



**Type:** Stem cells

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

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### Product Information

SCF is a critical factor in the maintenance and expansion of [hematopoietic stem cells](#) (HSCs) in the bone marrow microenvironment. SCF is a 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. SCF plays an important role in embryonic development, immune regulation, and cancer biology.

Qkine has optimized the SCF manufacture process to produce a highly bioactive protein with excellent lot-to-lot consistency, enhancing experimental reproducibility. Recombinant mouse SCF is a highly pure 18.4 kDa monomer, animal origin-free (AOF) and carrier-protein-free (CF).

### Alternative protein names

Kit ligand, Hematopoietic growth factor KL, Mast cell growth factor (MGF), Steel factor, Stem cell factor (SCF), c-Kit ligand, Qk77

### Molecular weight

18.4 kDa (monomer)

### Protein Uniprot number

High purity mouse SCF protein (UniProt number: P20826)

### Species reactivity

- mouse

- species similarity:
- human - 95%
- rat - 97%
- bovine - 87%
- porcine - 88%

### **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
- Differentiation of induced pluripotent stem cells to microglia

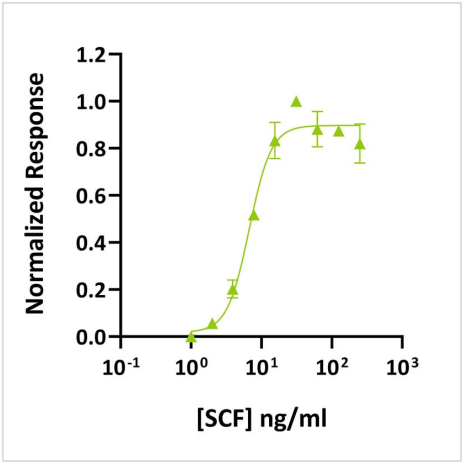
### **Further quality assays**

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

# Scientific Information

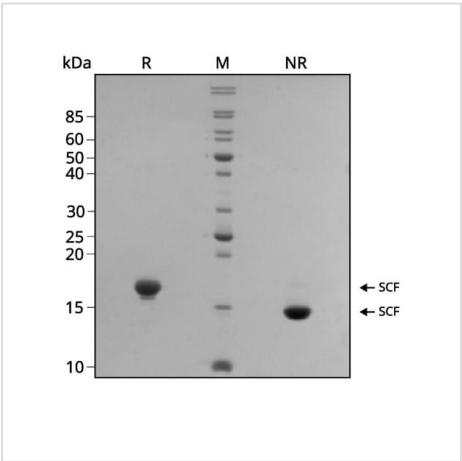
## Bioactivity

Recombinant mouse SCF activity was determined using the proliferation of TF-1 human myeloid leukemia cells. Cells were treated in triplicate with a serial dilution of SCF for 64.5 h. Cell viability was measured using the CellTiter 96 AQueous One (Promega) assay. Assay was performed by SBH Sciences. Data from Qk077 lot #204698, EC50 = 6.7 ng/ml (360 pM).



## Purity

Recombinant mouse SCF migrates as a band at approximately 18 kDa in reduced (R) and at approximately 15 kDa in non-reduced (NR) conditions. No contaminating protein bands are present. The purified recombinant protein (3µg) 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 Qk077 lot #204698.



Original product page: <https://qkine.com/product/recombinant-mouse-scf-protein-qk077/>

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