

**BACKGROUND:**

Stem Cell Factor (SCF) is a cytokine made by fibroblasts and endothelial cells. SCF binds to the receptor known as c-Kit (CD117) and is thought to play a critical role in the maintenance or survival of hematopoietic stem cells. Human SCF shows no activity on murine cells, but murine and rat SCF are active on human cells.

Recombinant human SCF is a non-glycosylated protein, containing 165 amino acids and having a molecular mass of 18.4 kDa

**Cat. No.:**  
RP1004AF

**Alternate Names:**  
c-Kit Ligand, KL, Steel Factor, MGF

**AA Sequence:**

MEGICRNRVT	NNVKDVTKL	ANLPKDYMIT
LKYVPGMDVL	PSHCWISEMV	VQLSDSLTDL
LDKFSNISEG	LSNYSIIDKL	VNIVDDLVEC
VKENS SKDLK	KSFKSPEPRL	FTPEEFFRIF
NRSIDAFKDF	VVASETSDCV	VSSTLSPEKD
SRVSVTKPFM	LPPVA	

**TECHNICAL INFO**

**Source:**  
*E. coli*

**Physical Appearance:**  
Sterile Filtered white lyophilized (freeze-dried) powder.

**Formulation:**  
10 mM acetic acid

**Stability:**  
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

**Reconstitution:**  
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product at 0.1 mg/ml in sterile 10 mM HCl, which can be further diluted into other aqueous solutions.

**Protein Content and Purity determined by:**

- UV spectroscopy at 280 nm.
- RP-HPLC calibrated against a known standard.
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

**Endotoxin Level:**  
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

**Biological Activity:**  
The activity is measured by dose-dependent T11 cell proliferation, with Bioactivity Acceptance Criteria ED50 at 15 ng/mL.

**Animal Component-Free**  
This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

