

**Product:** **Recombinant Rat Stem Cell Factor / SCF**  
**Cat #: 300-514P**  
Powder

Description	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. Alternate names: c-Kit Ligand, KL, Steel Factor, MGF
MW	Non-glycosylated protein, containing 165 amino acids, with a molecular weight of 18.4 kDa.
Physical Appearance	Sterile filtered white lyophilized (freeze-dried) powder.
Source	<i>E. coli</i>
Formulation	Recombinant rat SCF is lyophilized with no additives.
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 with sterile 10 mM acetic acid (AcOH) at a concentration of 0.1 mg/mL, which can be further diluted into other aqueous solutions.
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.
Biological Activity	The activity is determined by its ability to induce proliferation of TF-1 cells and is typically less than 10 ng/mL.
Endotoxin Level	Measured by kinetic LAL analysis and is typically $\leq 1$ EU/ $\mu$ g protein.
AA Sequence	MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLVAE MEENAPKNVK ESLKKPETRN FTPEEFFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA

Purity greater than 98% determined by Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.

Protein content determined by Reducing and Non-reducing SDS-PAGE, UV spectroscopy at 280 nm.

**THIS PRODUCT IS FOR RESEARCH USE ONLY AND IS NOT FOR USE IN HUMANS!**