

## 32-20194: Animal-Free Recombinant Rat SCF(Discontinued)

**Reactivity :** Human

**Alternative Name :** Stem Cell Factor, c-Kit Ligand, Mast Cell Growth Factor (MGF), Steel Factor

### Description

**Source:**E.coli

SCF is a hematopoietic growth factor that exerts its activity by signaling through the c-Kit receptor. SCF and c-Kit are essential for the survival, proliferation and differentiation of hematopoietic cells committed to the melanocyte and germ cell lineages. Human SCF manifests low activity on murine cells, while murine and rat SCF are fully active on human cells. The human SCF gene encodes for a 273 amino acid transmembrane protein, which contains a 25 amino acid N-terminal signal sequence, a 189 amino acid extracellular domain, a 23 amino acid transmembrane domain, and a 36 amino acid cytoplasmic domain. The secreted soluble form of SCF is generated by proteolytic processing of the membrane anchored precursor. Recombinant Rat SCF is an 18.4 kDa polypeptide containing 165 amino acid residues, which corresponds to the sequence of the secreted soluble form of SCF.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Purity: >= 98% by SDS-PAGE gel and HPLC analyses.

**Amino Acid :** MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG  
LSNYSIIDKL GKIVDDLVAE MEENAPKNVK ESLKKPETRN FTPEEFSIF NRSIDAFKDF MVASDTSDCV  
LSSTLGPEKD SRVSVTKPFM LPPVA

### Application Note

Determined by the dose-dependent stimulation of the proliferation of the human TF-1 cells. The expected  $ED_{50}$  for this effect is 20 - 40 ng/ml.