

## 32-1745: rSCF Recombinant Protein

**Alternative Name** Kit ligand Precursor,C-kit ligand,SCF,Mast cell growth factor, MGF,SF,KL-1,Kitl,DKFZp686F2250,Hematopoietic growth factor KL.

### Description

Source : Escherichia Coli. Stem cell factor Rat Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 164 amino acids (26-189) and having a molecular mass of 18.4 kDa.The Rat SCF is purified by proprietary chromatographic techniques. Stem cell factor / KIT ligand (SCF) is a cytokine which binds CD117 (c-Kit). SCF is also known as 'steel factor' or 'c-kit ligand'. SCF exists in two forms, cell surface bound SCF and soluble (or free) SCF. Soluble SCF is produced by the cleavage of surface bound SCF by metalloproteases.SCF is a growth factor important for the survival, proliferation, and differentiation of hematopoietic stem cells and other hematopoietic progenitor cells. One of its roles is to change the BFU-E (burst-forming unit-erythroid) cells, which are the earliest erythrocyte precursors in the erythrocytic series, into the CFU-E (colony-forming unit-erythroid).

### Product Info

**Amount :** 10 µg  
**Purification :** Greater than 98.0% as determined by:(a) Analysis by SEC-HPLC.(b) Analysis by SDS-PAGE.  
**Content :** Lyophilized from a concentrated (1mg/ml) solution in water containing 0.02% NaHCO<sub>3</sub>.  
**Storage condition :** Lyophilized rat SCF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution SCF should be stored at 4°C between 2-7 days and for future use below -18°C.For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Please prevent freeze-thaw cycles.  
**Amino Acid :** MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDL VAC MEENAPKNVK ESLKKPETRN FTPEE FFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA.

### Application Note

It is recommended to reconstitute the lyophilized SCF in sterile 18MΩ·cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. The ED50 is determined by the dose-dependant stimulation of the proliferation of human TF-1 cells which is < 10 ng/ml, corresponding to a specific activity of 100,000units/mg.

