

Recombinant Rat Stem Cell Factor (rr SCF)

Synonyms: Kit ligand Precursor, C-kit ligand, Mast cell growth factor, MGF, SF, Steel Factor, KL-1, Kitl,

Introduction: Stem cell factor is a cytokine which binds CD117(c-Kit). 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).

Description: Recombinant rat SCF produced in *E.Coli* is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18.4 kDa. The rr SCF is purified by proprietary chromatographic techniques.

Source: *Escherichia Coli*.

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

Formulation: Lyophilized from a 0.22 µm filtered solution in sodium phosphate pH7.2, 200 mM NaCl. The aliquotes of 1µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

Solubility: It is recommended to reconstitute the lyophilized rr SCF in sterile H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized rr SCF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rr 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.

Purity: Greater than 95.0% as determined by SDS-PAGE.

Amino Acid Sequence: MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDLAVAC MEENAPKNVK ESLKKPETRN FTPEEFFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA

Endotoxicity: The endotoxin level is less than 1 EU / µg determined by LAL method

Biological Activity: The biological activity of rec. rat SCF was tested by dose dependant proliferation of TF-1 cells. The ED₅₀ for this effect was determined to be less than 10 ng/ml corresponding to a specific activity of ≥ 1 x 10⁵ IU/mg.

This material is offered for **research only**. Not for use in human. For in vitro use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	2 µg	Cat.N°	13343322
<i>medium</i>	10 µg	Cat.N°	13343323
<i>large</i>	50 µg	Cat.N°	13343325
<i>x-large</i>	250 µg	Cat.N°	13343327
<i>xx-large</i>	1000 µg	Cat.N°	13343328

ImmunoTools Excellent Quality - Advantageously priced

Gladiolenweg 2; 26169 Friesoythe; Germany
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, info@immunotools.com
www.immunotools.com