



## Stem Cell Factor (SCF) Rat, *E. coli* Recombinant Protein

### Product Data Sheet

Cat. No.:	A33230002	A33230010	A33231000
Size:	2 µg	10 µg	1 mg

#### Description:

Our bioactive *Stem Cell Factor (SCF) Rat, E. coli Recombinant Protein* is a single, non-glycosylated polypeptide chain containing 164 amino acids (26-189) and has a molecular mass of 18.4 kDa. The SCF is purified by proprietary chromatographic techniques.

#### Summary:

Stem cell factor (SCF), also known as KIT ligand, binds to the receptor-type protein-tyrosine kinase KIT (CD117). This pleiotropic cytokine plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. SCF exists in both a soluble and a transmembrane isoform. SCF is commonly used in cell cultures *in vitro* to promote expansion of primitive hematopoietic stem cells and multi-potent progenitor cells.

#### Other Names:

Rat SCF, Rat KIT ligand, c-Kit ligand, KITLG, KL, KL-1, KITL, mast cell growth factor, MGF, Steel factor, SF

#### Source:

*E. coli*

#### Purity:

Greater than 98.0% as determined by SEC-HPLC and SDS-PAGE analysis.

#### Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

#### Formulation:

Lyophilized from a concentrated (1 mg/ml) solution in water containing 0.02% NaHCO<sub>3</sub>.

update.: 052022

#### Ilex Life Sciences LLC

1465 Sand Hill Rd, Suite 2018, Candler, NC 28715

Tel: 828-531-9949; Email: info@ilexlife.com

Web: <https://ilexlife.com/>

**Reconstitution:**

It is recommended to reconstitute the lyophilized Stem Cell Factor in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

**Biological Activity:**

The ED<sub>50</sub> is determined by the dose-dependent stimulation of the proliferation of human TF-1 cells which is < 10 ng/ml, corresponding to a specific activity of 100,000units/mg.

**Amino Acid Sequence:**

MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWLRDMV THLSVSLTTL LDKFSNISEG  
LSNYSIIDKL GKIVDDL VAC MEENAPKNVK ESLKKPETRN FTPEEFFSIF NRSIDAFKDF MVASDTSDCV  
LSSTLGPEKD SRVSVTKPFM LPPVA.

**Shipping:**

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

**Stability:**

Lyophilized 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.**

**Usage:**

This product is intended for **Laboratory Research Use Only**. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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