



Product Datasheet

Product Name	Stem Cell Factor Rat Recombinant
Cata No	CB500225
Source	<i>Escherichia Coli.</i>
Synonyms	Kit ligand Precursor, C-kit ligand, SCF, Mast cell growth factor, MGF, SF, KL-1, Kitl, DKFZp686F2250, Hematopoietic growth factor KL.

Description

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).

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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity

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 > 1 x 10⁵ units/mg.

Purity

Greater than 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

Formulation

Lyophilized from a concentrated (1 mg/ml) solution in water containing 0.02% NaHCO₃.

Stability

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.

Sequence

MQEICRNPVT DNVKDITKLV ANLPNDYMIT
LNYVAGMDVL PSHCWLRDMV THLSVSLTTL
LDKFSNISEG LSNYSIIDKL GKIVDDLVA
MEENAPKNVK ESLKKPETRN FTPEEFSIF
NRSIDAFKDF MVASDTSDCV LSSTLGPEKD
SRVSVTKPFM LPPVA.

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