

SCF Rat

Description: 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.

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

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

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

Purity: Greater than 98.0% as determined by: (a) Analysis by SEC-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

Lyophilized from a concentrated (1mg/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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized SCF in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Introduction:

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).

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 100,000 units/mg.

Catalog #:CYPs-330

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