

Murine SCF

Synonyms: Kitl, Gb, SF, Sl, Clo, Con, Mgf, SCF, SLF, Kitlg, contrasted, mSCF

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
2 µg	1885.960.002		
10 µg	1885.960.010		
50 µg	1885.960.050		
100 µg	1885.960.100		
500 µg	1885.960.500		
1 mg	1885.960.199		

Please enquire for bulk quantities and other vial sizes

Description

Stem cell factor (SCF), also known as ckit ligand (KL), mast cell growth factor (MGF), and steel factor (SLF), is a widely expressed 28-40 kDa type I transmembrane glycoprotein. It promotes the survival, differentiation, and mobilization of multiple cell types including myeloid, erythroid, megakaryocytic, lymphoid, germ cell, and melanocyte progenitors. SCF is a primary growth and activation factor for mast cells and eosinophils. Mature mouse SCF consists of a 189 amino acid (aa) extracellular domain (ECD), a 23 aa transmembrane segment, and a 36 aa cytoplasmic tail. Proteolytic cleavage at two alternate sites in the extracellular juxtamembrane region releases a 25 kDa soluble. An alternately spliced isoform of mouse SCF lacks 28 aa that encompasses the primary proteolytic recognition site. Within the ECD of the short isoform, mouse SCF shares 93% aa sequence identity with rat SCF and 72%-75% with canine, feline, and human SCF. Rat SCF is active on mouse and human cells, but human SCF is only weakly active on mouse cells. Noncovalent dimers of transmembrane or soluble SCF interact with the receptor tyrosine kinase SCF R/ckit to trigger receptor dimerization and signaling.

- **Source** *E. Coli*
- **Purity** ≥ 95 % (SDS-PAGE, silver stained)
- **Endotoxin level** < 0.1 ng per µg of mSCF

Biological Activity

The ED₅₀ as determined by the dose-dependent stimulation of the proliferation of the human TF-1 cell line is in the range of 2-10 ng/ml.

Reconstitution

Centrifuge vial prior to opening. Mouse SCF should be reconstituted in 50mM acetic acid or water to a concentration of 0.1 mg/ml. This solution can be diluted in water or other buffer solutions or stored at -20 °C.

Amino Acid Sequence

MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWL RDMV IQLSLSLTTL LDKFSNISEG
 LSNYSIIDKL GKIVDDLVL C MEENAPKNIK ESPKRPETRS FTPEEFFSIF NRSIDAFKDF MVASDTSDCV
 LSSTLGPEKD SRVSVTKPFM LPPVA

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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