

## Recombinant Murine Stem Cell Factor (rm SCF)

**SCF** is a hematopoietic growth factor that exerts its activity by signaling through the c-Kit receptor. SCF and c-Kit are essential for the survival, proliferation and differentiation of hematopoietic cells committed to the melanocyte and germ cell lineages. 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.

Human SCF manifests low activity on murine cells, while murine and rat SCF are fully active on human cells.

Recombinant murine SCF is an 18.3 kDa polypeptide containing 164 amino acid residues, which corresponds to the sequence of the secreted soluble form of SCF.

**Synonyms :** c-Kit Ligand, Mast Cell Growth Factor (MGF), Steel Factor (SF)

**Source:** *Escherichia coli*

**AA Sequence:** MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWL RDMV  
IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDL VLC MEENAPKNIK  
ESPKRPETRS FTPEEFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD  
SRVSVTKPFM LPPV

**Formulation:** Lyophilisate from a 0.22 µm filtered carrier free solution in water containing 10 mM sodium phosphate buffer, pH 6.5.

**Reconstitution:** Reconstitute in sterile endotoxin free water not less than 100 µg/ml

**Stability:** The lyophilized protein is stable for at least 2 years at -20°C. Reconstituted rm SCF is stable for at least 3 months when stored in concentrated working aliquots (100 ng/µl or higher) at -20°C. Avoid repeated freeze/thaw cycles.

**Biological Activity:** Determined by the dose-dependant stimulation of human TF-1 cell line the ED50 is < 10 ng/ml

**Purity:** 95% (verified by SDS-PAGE / silver stain)

**Endotoxicity:** The endotoxin level is less than 0.1 ng per µg (1EU/µg) determined by LAL method

**Order N°:** rm SCF+Size  
available sizes: 2 µg, 10 µg, 50 µg

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