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## Product Data Sheet

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Product Name: SCF Mouse  
 Cat. No.: GP20923  
 Batch No.: 1

### Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Kit ligand Precursor; C-kit ligand; SCF; Mast cell growth factor; MGF; SF; KL-1; Kitl; DKFZp686F2250; Hematopoietic growth factor KL; Steel factor.		
Amino Acid Sequence	MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWL RDMV IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDL VLC MEENAPKNIK ESPKRPETRS FTPEEFFSIF NRSIDAFKDF MVASDTS DCV LSSTLGPEKD SRVSVTKPFM LPPVA.		
Solubility	It is recommended to reconstitute the lyophilized Stem Cell Factor in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Lyophilized from a concentrated (1mg/ml) solution in water containing 0.02% NaHCO <sub>3</sub> .		

### 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 ED<sub>50</sub> as determined by the dose-dependant stimulation of Human TF-1 cell line is < 10 ng/ml, corresponding to a Specific Activity of 1x10<sup>5</sup> IU/mg.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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### Stability

Lyophilized KIT ligand although stable at room temperature for 3 weeks, should be stored desiccated below  $-18^{\circ}\text{C}$ . Upon reconstitution SCF should be stored at  $4^{\circ}\text{C}$  between 2-7 days and for future use below  $-18^{\circ}\text{C}$ . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Background

Stem Cell Factor Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18309 Dalton. The SCF is purified by proprietary chromatographic techniques.

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