



## Stem Cell Factor, His Tag, human recombinant (rHuSCF-Sf9-His)

**Catalog No:** 87408  
**Lot No:** XXXXX  
**Source:** Sf9, Insect Cells  
**Synonyms:** Kit ligand Precursor, C-kit ligand, SCF, Mast cell growth factor, MGF, SF, KL-1, Kitl, DKFZp686F2250

### Background

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).

### Description

Stem Cell Factor human recombinant produced in insect cells is a single, glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18409 Dalton. SCF is fused to a C-terminal His Tag (6x His) and purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

### Formulation

The protein is supplied in 1X PBS, pH 7.4.

### Solubility

It is recommended to reconstitute the lyophilized SCF in 10 mM acetic acid not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized KIT ligand, 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.

### Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

### Activity

The ED50 as determined by the dose-dependant stimulation of Human TF-1 cells is typically 2 - 5 ng/ml, corresponding to a specific activity of 200,000 - 500,000 units/mg.

### Usage

**This product is offered by Biomol for research purposes only. Not for diagnostic purposes or human use. It may not be resold or used to manufacture commercial products without written approval of Biomol GmbH.**

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