



Stem Cell Factor (SCF) Human, Sf9 Recombinant Protein

Product Data Sheet

Cat. No.:	A34210002	A34210010	A34211000
Size:	2 µg	10 µg	1 mg

Description:

Our bioactive *Stem Cell Factor (SCF) Human, Sf9 Recombinant Protein* is a single, glycosylated polypeptide chain containing 165 amino acids and has a molecular mass of 18,409 Dalton. The SCF is fused to a C-terminal His-tag (6xHis) and purified by proprietary chromatographic techniques.

Summary:

Stem cell factor (SCF), also known as KIT ligand, binds to the receptor-type protein-tyrosine kinase KIT (CD117). This pleiotropic cytokine plays an essential role in the regulation of cell survival and proliferation, hematopoiesis, stem cell maintenance, gametogenesis, mast cell development, migration and function, and in melanogenesis. SCF exists in both a soluble and a transmembrane isoform. SCF is commonly used in cell cultures *in vitro* to promote expansion of primitive hematopoietic stem cells and multi-potent progenitor cells.

Other Names:

KIT ligand, c-Kit ligand, KITLG, KL, KL-1, KITL, mast cell growth factor, MGF, Steel factor, SF

Source:

Sf9 insect cells

Purity:

Greater than 98.0% as determined by SDS-PAGE analysis.

Physical Appearance:

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation:

The lyophilized protein is supplied in 1xPBS, pH 7.4.

update.: 052022

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**Reconstitution:**

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

Biological Activity:

The ED₅₀ as determined by the dose-dependent stimulation of Human TF-1 cells is typically 1-5 ng/ml.

Protein Content:

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency value of 0.52 as the extinction coefficient for a 0.1% (1 mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a standard solution of Stem Cell Factor as a Reference Standard.

Shipping:

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Stability:

Lyophilized 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:

This product is intended for **Laboratory Research Use Only**. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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