

Datasheet

SCF

Human Recombinant

Product	Description	Catalogue-No.	Size
SCF	Stem cell factor, human recombinant	CB-1110000 CB-1110001 CB-1110002	2 µg 10 µg 50 µg

Product description

Synonyms: Kit ligand Precursor, C-kit ligand, SCF, Mast cell growth factor, MGF, SF, KL-1, Kitl, DKFZp686F2250.

Stem cell factor / KIT ligand (SCF) is a cytokine which binds to CD117 (c-Kit). SCF is also known as a "steel factor" or "c-kit ligand". Soluble SCF is produced by cleaving 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 burst-forming unit-erythroid (BFU-E) cells, the earliest precursors of erythrocyte series, into the colony-forming unit-erythroid (CFU-E) cells.

SCF is a single, non-glycosylated polypeptide chain, produced in *E.coli*. It has a mass of 18,409 Dalton and consists of 165 amino acids.

SCF is purified by chromatographic techniques.

Solubility and storage conditions

The lyophilized SCF should be reconstituted in sterile distilled water to a concentration not less than 100µg/ml. This solution can be diluted into other buffered aqueous solutions or stored at -20 C for future use. The lyophilized SCF, can be stored at 2-8°C between 2-7 days. Reconstituted SCF should be stored in working aliquots at -20 C. It is recommended to add a carrier protein (0.1% HAS or BSA) for long term storage.

Please prevent freeze-thaw cycles.

Composition

Lyophilized from a concentrated (1mg/ml) solution in water containing 0.02% NaHCO₃.

Purity: >98.0% as determined by SEC-HPLC and SDS-Page

Amino acid sequence: The sequence of the first five N-terminal amino acids was determined and was found to be Met-Glu-Gly-Ile-Cys.

Biological activity: The ED₅₀ as determined by the dose-dependent stimulation of human TF-1 cells is < 2ng/ml, which corresponds to a Specific Activity of 500,000 IU/mg.

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 SCF as a Reference Standard

Suitability

FOR RESEARCH USE ONLY!

Not approved for human or animal diagnostic or therapeutic procedures.

Technical support

For technical support, questions or remarks please contact your local PAN-Biotech partner or the technical department of PAN-Biotech via email (info@pan-biotech.com) or phone +49-8543-601630.

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