

SCF, Human

Cat. No.: Z00400-1

Size: 1.0 mg

Synonyms: rHuSCF; SCF

Description:

Human Stem Cell Factor (SCF), produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18,409 Da. Stem Cell Factor (SCF) is a hematopoietic growth factor that exerts its activity during the early stages of hematopoiesis. Stem Cell Factor (SCF) stimulates the proliferation of myeloid, erythroid, and lymphoid progenitors in bone marrow cultures and has been shown to act synergistically with colony stimulating factors.

Source: *E. coli*

Species: Human

Biological Activity: The ED50, as determined by the dose-dependant stimulation of human TF-1 cells, is < 2 ng/ml, corresponding to a specific activity of 5×10^5 IU/mg.

Molecular Weight: 18,409 Da

Sequence Analysis: The sequence of the first five N-terminal amino acids has been found to be Met-Glu-Gly-Ile-Cys.

Formulation: The protein was lyophilized after extensive dialysis against 20mM HAc-NaAc, pH4.5, 200mM NaCl buffer.

Reconstitution: It is recommended that the lyophilized recombinant human stem cell factor (SCF) be reconstituted in sterile 18 MΩ-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Purity: Greater than 95.0% as determined by the following methods:

(a) Analysis by SEC-HPLC

(b) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel

Endotoxin Level: Less than 0.1 ng/µg (IEU/µg) of rHuSCF

Storage: Lyophilized recombinant human stem cell factor (SCF) remains stable at room temperature for three weeks, but it is best stored desiccated below -18°C. Upon reconstitution Recombinant Human Stem Cell Factor (SCF) should be stored at 4°C for up to seven days. For long term storage it is recommended that a carrier protein (0.1% HSA or BSA) be added. Avoid repeated freeze-thaw cycles.