

Recombinant Murine Stem Cell Factor (SCF)

Certificate of Analysis and Data Sheet

➤Source: E.Coli	➤Catalog No. CTK-275
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➤ Description :

Recombinant murine SCF produced in E.Coli is a single, non-glycosylated polypeptide chain containing 164 amino acids and having a molecular mass of 18309 Dalton.

The SCF is purified by proprietary chromatographic techniques.

➤ Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

➤ Formulation:

Lyophilized from a concentrated (1mg/ml) solution in water containing 10mM Sodium phosphate buffer pH=6.5.

➤ Solubility:

It is recommended to reconstitute the lyophilized Mouse SCF in sterile 18MΩ-cm H₂O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

➤ Stability:

Lyophilized Mouse SCF although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution rmSCF 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 98.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Anion-exchange FPLC.
- (c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

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

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This recombinant Murine SCF is fully biologically active when compared to standard. The ED₅₀ as determined by the dose-dependent stimulation of Human TF-1 cell line is < 10 ng/ml, corresponding to a Specific Activity of 1x10⁵ IU/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Murine SCF.

➤ **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% (1mg/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.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.