

# Recombinant Rat Stem Cell Factor (SCF)

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-323
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### ➤ **Description :**

Recombinant Rat 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 18409 Dalton.

Recombinant 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 20mM Tris pH-7.5.

### ➤ **Solubility:**

It is recommended to reconstitute the Recombinant Rat Stem Cell Factor in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100 $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized Rat SCF, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution recombinant 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 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-Gln-Glu-Ile-Cys.

➤ **Dimers and aggregates:**

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

➤ **Biological Activity:**

This recombinant Rat Stem Cell Factor is fully biologically active when compared to standard. The ED50 is determined by the dose-dependent stimulation of the proliferation of human MO7e cells which is < 10 ng/ml, corresponding to a specific activity of > 1 x 10<sup>5</sup> units/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of SCF.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm .
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.