

# Recombinant Human Stem Cell Factor

Catalog No: tcsc0031941



## Available Sizes

**Size:** 2ug

**Size:** 10ug

**Size:** 50ug



## Specifications

**Formula:**

N/A

**Pathway:**

Others

**Target:**

Others

**Purity / Grade:**

>98%

**Solubility:**

Reconstituted in ddH<sub>2</sub>O at 100 µg/mL

**Alternative Names:**

rHuSCF;SCF; c-kit Ligand; Mast cell growth factor

**Observed Molecular Weight:**

1000

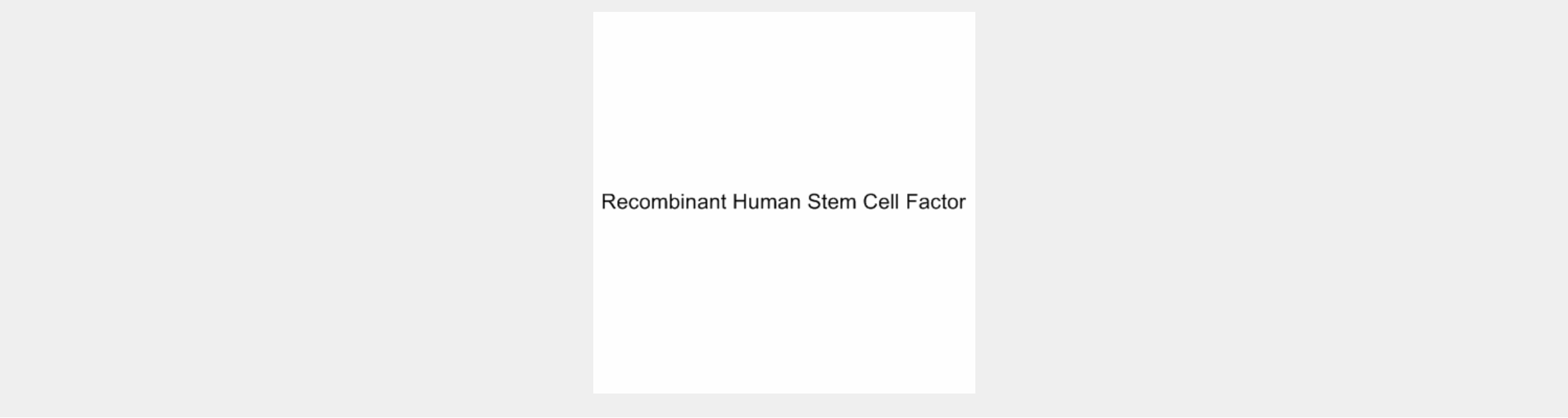
## Product Description

Recombinant Human Stem Cell Factor is a non-glycosylated protein, containing 165 amino acids.

Species: Human

Source: *P. pastoris*

***In Vitro:*** Stem cell factor (SCF) is a dimeric molecule that exerts numerous effects on a broad range of cell types by activating the receptor tyrosine kinase c-Kit. SCF is produced by endothelial cells, fibroblasts, keratinocytes, gut epithelial cells and tumor cells. SCF can act on hematopoiesis by stimulating the survival and proliferation of stem cells and progenitor cells. SCF is also crucial for mast cell proliferation, function and the development of other cells, including melanocytes and germ cells. Some tumor cell proliferation and invasiveness are promoted by SCF. Recombinant human SCF (rhSCF) can maintain hematopoietic stem cells and mast cell in culture, and it is widely tested in research into differentiation from embryonic stem cell (ESC)/induced pluripotent stem cell (iPSC)<sup>[1]</sup>. In humans, SCF also acts synergistically with IL-3, granulocyte-macrophage colony-stimulating factor (GM-CSF), granulocyte colony-stimulating factor (G-CSF), and erythropoietin (Epo) to induce colony formation by unseparated human marrow cell. SCF acts by inducing increasing numbers of CD34<sup>+</sup> lin<sup>-</sup> precursors to proliferate in the presence of additional growth factors<sup>[2]</sup>. The ED<sub>50</sub>, as determined by the dose-dependant stimulation of human TF-1 cells, is 5 IU/mg.



Recombinant Human Stem Cell Factor

All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!