

SCF, Rat

Cat. No.: Z03094-1

Size: 1.0 mg

Synonyms: Stem Cell Factor, c-Kit Ligand, Mast Cell Growth Factor (MGF), Steel Factor

Description:

Stem Cell Factor (SCF) is a hematopoietic growth factor that binds to the c-Kit receptor. SCF exerts its activity during the early stages of hematopoiesis. 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.

Recombinant rat Stem Cell Factor (rrSCF) produced in *P. pastoris* is a single glycosylated polypeptide chain containing 164 amino acids. A fully biologically active molecule, rrSCF has a molecular mass of 18.3 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 QEICRNPVTD NVKDITKLVA NLPNDYMITL NYVAGMDVLP
00041 SHCWLRDMVT HLSVSLTLL DKFSNISEGL SNYSIIDKLG
00081 KIVDDL VACM EENAPKNVKE SLKKPETRNF TPEEFSIFN
00121 RSIDAFKDFM VASDTSDCVL SSTLGPEKDS RVSVKPFML
00161 PPVA
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Source: *P. pastoris*

Species: Rat

Biological Activity: ED₅₀ < 25 ng/mL, measured by a cell proliferation assay using TF-1 Cells, corresponding to a specific activity of > 4 × 10⁴ units/mg.

Molecular Weight: 18.3 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% by SDS-PAGE analysis.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant rat Stem Cell Factor (rrSCF) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rrSCF should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.