SCF Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Stem Cell Factor, c-Kit Ligand, Mast Cell Growth Factor (MGF), Steel Factor

Cat. No.:

RBG10291002	(2 µg)
RBG10291010	(10 µg)
RBG10291100	(100 µg)

Description

SCF is a hematopoietic growth factor that exerts its activity by signaling through the c-Kit receptor. SCF and c-Kit are essential for the survival, proliferation and differentiation of hematopoietic cells committed to the melanocyte and germ cell lineages. Human SCF manifests low activity on murine cells, while murine and rat SCF are fully active on human cells. The human SCF gene encodes for a 273 amino acid transmembrane protein, which contains a 25 amino acid N-terminal signal sequence, a 189 amino acid extracellular domain, a 23 amino acid transmembrane domain, and a 36 amino acid cytoplasmic domain. The secreted soluble form of SCF is generated by proteolytic processing of the membrane anchored precursor. Recombinant Human SCF is an 18.4 kDa polypeptide containing 165 amino acid residues, which corresponds to the sequence of the secreted soluble form of SCF.

Research topic

Others

Amino Acid Sequence

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MEGICRNRVT NNVKDVTKLV ANLPKDYMIT LKYVPGMDVL PSHCWISEMV VQLSDSLTDL LDKFSNISEG LSNYSIIDKL
VNIVDDLVEC VKENSSKDLK KSFKSPEPRL FTPEEFFRIF NRSIDAFKDF VVASETSDCV VSSTLSPEKD SRVSVTKPFM LPPVA
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Source

E. coli

Purity

98%

Biological Activity

The ED_{50} as determined by the dose-dependent stimulation of the proliferation of human TF-1 cells is ? 2.0 ng/ml, corresponding to a specific activity of ? 5×10^{5} units/mg.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

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