CELL APPLICATIONS, INC.

RECOMBINANT PROTEINS

Rat Stem Cell Factor

SIZE	CAT. NO.
10 ug	RP3032-10
100 ug	RP3032-100
1000 ug	RP3032-1000

BACKGROUND

Stem Cell Factor (SCF) is a cytokine made by fibroblasts and endothelial cells. SCF binds to the receptor known as c-Kit (CD117) and is thought to play a critical role in the maintenance or survival of hematopoietic stem cells. Human SCF shows no activity on murine cells, but murine and rat SCF are active on human cells.

Recombinant rat SCF is a non-glycosylated protein, containing 165 amino acids and having a molecular mass of 18.4 kDa.

Alternative Names:
c-Kit Ligand, KL, Steel Factor, MGF

Amino Acid Sequence:
MQEICRNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL
PSHCWLRDMV THLSVSLTTL LDKFSNISEG LSNYSIIDKL
GKIVDDLVAC MEENAPKNVK ESLKKPETRN FTPEEFFSIF
NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA

TECHNICAL INFORMATION

Source: *E.coli*

Physical Appearance:
Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation:
Recombinant rat SCF is lyophilized with no additives.

Stability:
Lyophilized product is very stable at -20°C. Reconstituted material should be aliquoted and frozen at -20°C. It is recommended that a carrier protein (0.1% HSA or BSA) is added for long term storage.

Reconstitution:
Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile 10 mM acetic acid at a concentration of 0.1 mg/ml, which can be further diluted into other aqueous solutions.

Protein Content and Purity determined by:

- UV spectroscopy at 280 nm
- RP-HPLC calibrated against a known standard
- Quantitation against a known standard via reducing and non-reducing SDS-PAGE gels.

Endotoxin Level:
Endotoxin level, as measured by LAL analysis, is <0.01ng/ug or <0.1EU/ug.

Biological Activity:
The activity is determined by its ability to induce proliferation of TF-1 cells and is typically less than 10 ng/mL.