

Recombinant Murine Stem Cell Factor

#R00239

Size: 10 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Stem Cell Factor (SCF) which binds to the c-Kit receptor is produced by fibroblasts and endothelial cells. The soluble and transmembrane forms of the protein are formed by alternative splicing of the same RNA transcript and the presence of both soluble and transmembrane It is required for normal hematopoietic function and plays an important role in hematopoiesis, spermatogenesis, and melanogenesis. It also promotes mast cell adhesion, migration, proliferation, and survival.

AA Sequence

MKEICGNPVTDNVKDITKLVANLPNDYMITLNYVAGM
DVLPSHCWLRDMVIQLSLSLTTLDDKFSNISEGLSNYS
IIDKLGKIVDDLVL CMEENAPKNIKESPKRPETRSFTPE
EFFSIFNRSIDAFKDFMVASDTSDCVLSSTLGPEKDS
RVSVTKPFMLPPVA

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Hematopoietic growth factor KL, MGF, SCF
Accession	P20826
GeneID	17311
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 18.4 kDa, a single non-glycosylated polypeptide chain containing 165 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using human TF-1 cells is less than 10 ng/ml, corresponding to a specific

	activity of $> 1.0 \times 10^5$ IU/mg.
Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Endotoxin	Less than 1 EU/ μ g of rMuSCF as determined by LAL method.
