

SCF, murine recombinant protein

Information

Gene ID	17311
Accession #	P20826
Alternate Names	Hematopoietic growth factor KL, MGF, SCF
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 18.4 kDa, a single non-glycosylated polypeptide chain containing 165 amino acids.
AA Sequence	MKEICGNPVT DNVKDITKLV ANLPNDYMIT LNYVAGMDVL PSHCWL RDMV IQLSLSLTTL LDKFSNISEG LSNYSIIDKL GKIVDDL VLC MEENAPKNIK ESPKRPETRS FTPEEFSIF NRSIDAFKDF MVASDTSDCV LSSTLGPEKD SRVSVTKPFM LPPVA
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
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.
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 × 10 ⁵ IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
SCF, murine recombinant protein	10 µg	100 µg	500 µg

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Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuSCF as determined by LAL method.

Description

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.

Reference

1. Ronnstrand L. 2004. Cell Mol Life Sci. 61:2535-48.
2. Anderson DM, Williams DE, Tushinski R, et al. 1991. Cell Growth Differ. 2:373-8.
3. Brannan CI, Lyman SD, Williams DE, et al. 1991. Proc Natl Acad Sci U S A. 88:4671-4.
4. Okayama Y, Kawakami T. 2006. Immunol Res. 34:97-115.

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