

Stem Cell Factor Recombinant Protein | SCF recombinant protein

Mouse Stem Cell Factor Recombinant

CATALOG #	HOST
AAA76095	Insect Cells (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

Stem Cell Factor; Mouse Stem Cell Factor Recombinant; Mouse Stem cell Factor; kit ligand; kitlg; mgf; stem cell factor; scf; SCF recombinant protein

PRODUCT SPECIFICATIONS

Host	Insect Cells (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant Stem cell factor was lyophilized from a 0.2 um filtered solution in 20mM Tris, 5% trehalose, pH 7.5.
Sequence	MKKTQTWIIT CIYLQLLLFN PLVKTKEICG NPVTDNVKDI TKLVANLPND YMITLNYVAG MDVLP SHCWL RDMVIQLSLS LTTLLDKFSN ISEGLSNYSI IDKLGKIVDD LVL CMEENAP KNIKESPKRP ETRSFTPEEF FSIFNRSIDA FKDFMVASDT SDCVLSSTLG PEKDSRVSVT KPFMLPPVAA SSLRNDSSSS NRKAAKAPED SGLQWTAMAL PALISLVIGF AFGALYWKKK QSSLTRA VEN IQINEEDNEI SMLQQKERE F QEV
Sequence Length	273
Domain	Four helix core
Host Note	Optimized DNA sequence encoding Mouse SCF mature chain was expressed in Insect cells.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Molecular Weight Note	Native Mouse Stem Cell Factor is generated by the proteolytic removal of the signal peptide and propeptide, the molecule has a calculated molecular mass of approximately 18 kDa. Recombinant SCF is a disulfide-linked monomer protein consisting of 165 amino acid residue subunits, and due to glycosylation migrates as an approximately 23 kDa protein under non-reducing and reducing conditions in SDS-PAGE.
Preparation and Storage	The lyophilized protein is stable for at least 2 years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree - 8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for SCF recombinant protein	SCF is a stromal cell- derived cytokine synthesized by fibroblasts and other cell types. SCF promotes proliferation and early differentiation of cells at the level of multipotential stem cells. It has been suggested that SCF is essential for optimal production of various hematopoietic lineages, mainly because of its ability to prevent apoptosis when it co- stimulates with other cytokines. The receptor for SCF, designated SCFR (CD117), is the oncogene designated as KIT. The biological activities of SCF are synergised considerably by colony stimulating factors GM-CSF and G-CSF, and also by IL7, Epo and some other growth and differentiation factors. In combination with IL7 SCF stimulates the proliferation of pre-B-cells. SCF is also a potent chemoattractant for cells (see also: Chemotaxis), for example, mast cells, expressing the kit receptor. One response to SCF in these cells is a characteristic rearrangement of the actin filaments of the cytoskeleton.
Product Categories/Family for SCF recombinant protein	Cytokines
References	• cardiomyocyte-specific overexpression of human Stem Cell Factor improves cardiac function and survival after myocardial infarction in mice .<i>Circulation</i>, Sep 2009; 120: 1065 - 1074. • Stem Cell Factor and interleukin-2/15 combine to enhance mapk-mediated proliferation of human natural killer cells .<i>Blood</i>, Mar 2009; 113: 2706 - 2714. • human Stem Cell Factor (scf) is a heparin-binding cytokine .<i>J. Biochem.</i>, Mar 2009; 145: 275 - 278. • role of Stem Cell Factor and bone marrow-derived fibroblasts in airway remodeling .<i>Am. J. Pathol.</i>, Feb 2009; 174: 390 - 400. • Stem Cell Factor signaling collaborates in the development of fip1l1/pdgfr induced chronic eosinophilic leukemia in a murine model .<i>Blood (ASH Annual Meeting Abstracts)</i>, Nov 2008; 112: 470.

NCBI AND UNIPROT INFORMATION

NCBI GI #	7305267
NCBI GeneID	17311
NCBI Accession #	NP_038626.1
NCBI GenBank Nucleotide #	NM_013598.2
UniProt Accession #	P20826; P97332; Q3TNJ7; Q62524; Q64222; Q921N5; Q61854; Q64384; Q78ED8; Q8C9K1
Molecular Weight	30,645 Da
NCBI Official Full Name	kit ligand
UniProt Protein Name	Kit ligand
UniProt Gene Name	Kitlg
UniProt Synonym Gene Names	Kitl; Mgf; Sl; Slf; MGF; SCF; sKITLG
UniProt Entry Name	SCF_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/kitlg-recombinant-protein-insect/76095>