

Stem Cell Factor Recombinant Protein | SCF recombinant protein

Human Stem Cell Factor Recombinant

CATALOG #	HOST
AAA76098	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)

PRODUCT SYNONYMS

Stem Cell Factor; Human Stem Cell Factor Recombinant; Kitlg; scf; stem cell factor; kit ligand; SCF recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)
Purity/Purification	>97%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant SCF was lyophilized from a 0.2 um filtered solution inPBS pH 7.0.
Sequence	MKKTQTWILT CIYLQLLLFN PLVKTEGICR NRVTNNVKDV TKLVANLPKD YMITLKYVPG MDVLPSHCWI SEMVVQLSDS LTDLLDKFSN ISEGLSNYSI IDKLVNIVDD LVECVKENSS KDLKKSFKSP EPRLFTPEEF FRIFNRSIDA FKDFVVASET SDCVVSSTLS PEKDSRVSVT KPFMLPPVAA SSLRNDSSSS NRKAKNPPGD SSLHWAAMAL PALFSLIIGF AFGALYWKKR QPSLTRAVERN IQINEEDNEI SMLQEKEREF QEV
Sequence Length	273
Domain	four helix cytokine core
Host Note	Optimized DNA sequence encoding Human SCF mature chain was expressed in Escherichia Coli.
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 human 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 migrates as an approximately 18 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	• pollen-specific skp1-like proteins are components of functional SCF complexes and essential for lily pollen tube elongation .<i>Plant Cell Physiol.</i>, Aug 2009; 50: 1558 - 1572. • SCF induces -globin gene expression by regulating downstream transcription factor coup-tfii .<i>Blood</i>, Jul 2009; 114: 187 - 194. • jfk, a kelch domain-containing f-box protein, links the SCF complex to p53 regulation .<i>PNAS</i>, Jun 2009; 106: 10195 - 10200. • the extracellular signal-regulated kinase-mitogen-activated protein kinase pathway phosphorylates and targets cdc25a for SCF?-trcp-dependent degradation for cell cycle arrest .<i>Mol. Biol. Cell</i>, Apr 2009; 20: 2186 - 2195. • mmp9 and SCF protect from apoptosis in acute kidney injury .<i>J. Am. Soc. Nephrol.</i>, Apr 2009; 20: 787 - 797.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4505175
NCBI GeneID	4254
NCBI Accession #	NP_000890.1
NCBI GenBank Nucleotide #	NM_000899.4
UniProt Accession #	P21583; Q16487; Q68DZ2; Q7M4N8; Q9UQK7; A0AV09; A8K2Q4; B7ZLM4
Molecular Weight	30,899 Da
NCBI Official Full Name	kit ligand isoform b
UniProt Protein Name	Kit ligand
UniProt Gene Name	KITLG
UniProt Synonym Gene Names	MGF; SCF; MGF; SCF; sKITLG
UniProt Entry Name	SCF_HUMAN

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://stage.aaabiotech.com/kitlg-recombinant-protein-e-coli/76098>