

## Active Recombinant Human KIT Ligand

**Cat. No.** KITLG-306H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human SCF produced in E.Coli is a single, non-glycosylated polypeptide chain containing 165 amino acids and having a molecular mass of 18409 Dalton.
<b>Species</b>	Human
<b>Source</b>	E.coli
<b>Description</b>	Stem Cell Factor (also known as SCF, kit-ligand, KL, or steel factor) is a cytokine that binds to the c-Kit receptor (CD117). SCF can exist both as a transmembrane protein and a soluble protein. This cytokine plays an important role in hematopoiesis (formation of blood cells), spermatogenesis, and melanogenesis.
<b>Form</b>	Lyophilized from a concentrated (1mg/ml) solution in water containing 10mM Acetic acid.
<b>Purity</b>	Purity Greater than 98% as determined by: Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Bio-activity</b>	Human SCF is fully biologically active when compared to standard. The ED50 as determined by the dose-dependant stimulation of Human TF-1 cells is less then 1.7 ng/ml.
<b>Physical Appearance</b>	Sterile Filtered white lyophilized (freeze-dried) powder.

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<b>Solubility</b>	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 water at a concentration of 0.1 mg $\mu$ s/ml, which can be further diluted into other aqueous solutions.
<b>Purity Greater than 97% as determined by</b>	Analysis by RP-HPLC. Reducing and non-reducing SDS-PAGE.
<b>Protein Content determined by</b>	UV spectroscopy at 280 nm. Analysis by RP-HPLC calibrated against a known standard. Quantitation on SDS-PAGE against a known standard.
<b>Endotoxin Level</b>	Endotoxin level as measured by LAL is <0.01ng/ug or <0.1EU/ug.
<b>Amino acid sequence</b>	MEGICRNRVT NNVKDVTKLV ANLPKDYMIT LKYVPGMDVL PSHCWISEMV VQLSDSLTDL LDKFSNISEG LSNYSIIDKL VNIVDDLVEC VKENSSKDLK KSFKSPEPRL FTPEEFFRIF NRSIDAFKDF VVASETSDCV SSTLSPEKD SRVSVTKPFM LPPVALPPVA V
<b>Storage</b>	Lyophilized product is very stable at -20 degrees. Reconstituted material should be aliquoted and frozen at -20. It is recommended to add a carrier protein (0.1% HSA or BSA) for long term storage.

## GENE INFORMATION

<b>Gene Name</b>	KITLG KIT ligand [ Homo sapiens ]
<b>Official Symbol</b>	KITLG
<b>Synonyms</b>	KITLG; SF; MGF; SCF; FPH2; KL-1; Kitl; SHEP7; DKFZp686F2250; kit ligand; c-Kit

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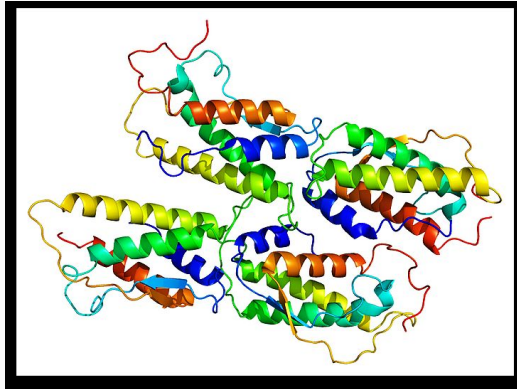
	ligand; steel factor; stem cell factor; mast cell growth factor; familial progressive hyperpigmentation 2
<b>Gene ID</b>	4254
<b>mRNA Refseq</b>	NM_000899
<b>Protein Refseq</b>	NP_000890
<b>MIM</b>	184745
<b>UniProt ID</b>	P21583
<b>Chromosome Location</b>	12q22
<b>Pathway</b>	Cytokine-cytokine receptor interaction; Hematopoietic cell lineage; Melanogenesis; C-MYB transcription factor network; Kit Receptor Signaling Pathway; Pathways in cancer; Signaling events mediated by Stem cell factor receptor (c-Kit)
<b>Function</b>	growth factor activity; identical protein binding; stem cell factor receptor binding; cytokine activity; protein binding

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